

2 TECHNICAL

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- 24/9/96

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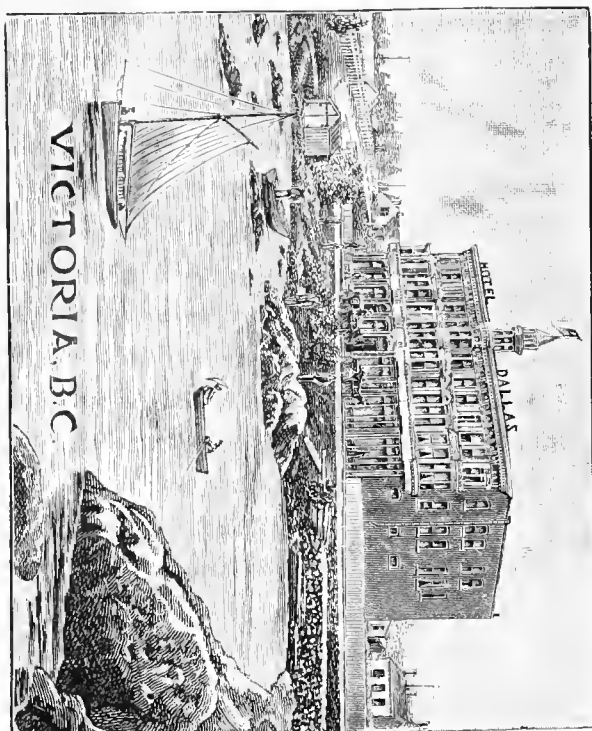
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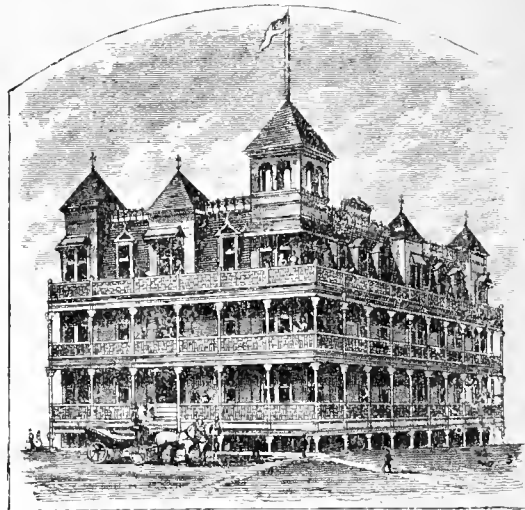
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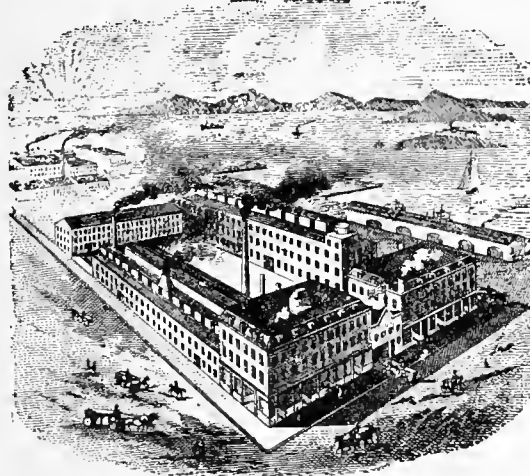
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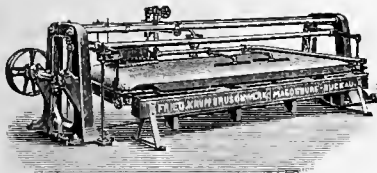
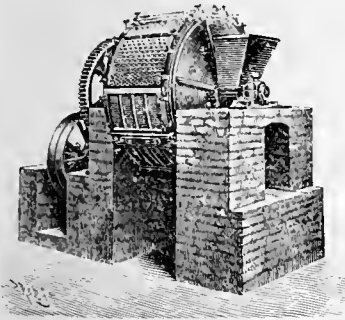
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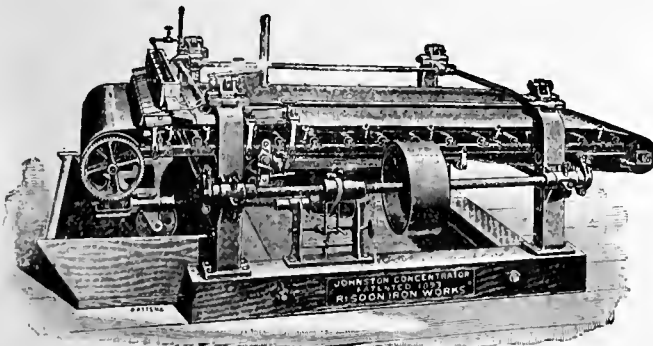
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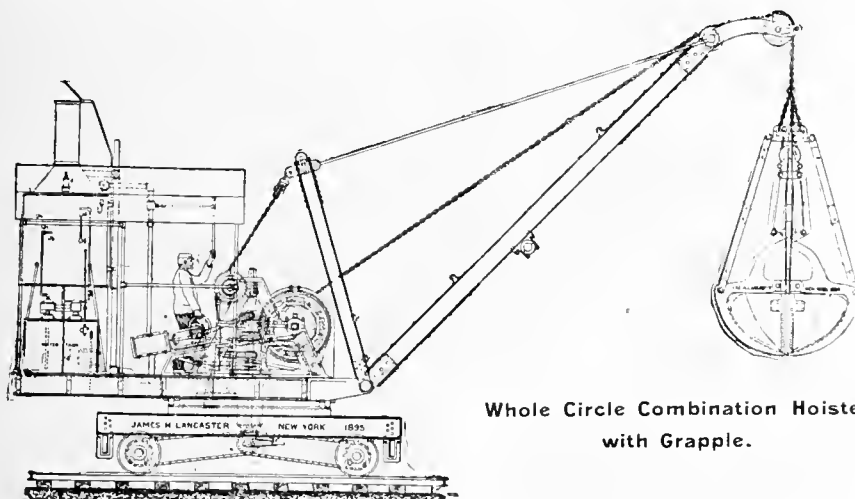
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The Mining Record.

Vol. II.

AUGUST, 1896.

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All communications relating to the business department of the British Columbia MINING RECORD to be addressed to the BUSINESS MANAGER.

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VOL. 2. AUGUST, 1896. No. 8.

Notice.

We have organized the following departments in connection with the B.C. MINING RECORD, with the view of forwarding the interests of our many readers, especially those living in the mining districts:

Enquiry Department.

In connection with the B.C. MINING RECORD we have established an "Enquiry Department" for the purpose of furnishing information about the mining resources and mining industries of British Columbia to parties outside the Province who may desire to obtain the same. For this we make no charge, but, on the contrary, will only be too glad to reply to any communications addressed to

ENQUIRY DEPARTMENT,
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Victoria, B.C., or
Vancouver, B.C.

Publishing Department.

Readers of the B.C. MINING RECORD wishing to obtain any work on mining, metallurgy, geology, assaying, etc., may procure the same by addressing

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Victoria, B.C., or
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Purchasing Department.

For the accommodation of our readers and others living in the mining districts we have opened a "Purchasing Department" in connection with the B.C. MINING RECORD. In this we will act merely as a medium between buyer and seller—we keep no stock of goods on hand. But it frequently arises that people living in the mining districts require articles which they are unable to obtain near home, and which they do not know where to purchase. If these parties will write to us, we will either inform them where the articles can be had and the price of them or we will place their order with some respectable firm. As we have an intimate knowledge of the trade, not only in the Coast cities, but also in Eastern Canada, the United States and England, parties writing us may be assured that if any article they require can be obtained we will get it for them. Where parties know the price of the article they should enclose a post office order for the amount, and we will forward the article. In such cases the express, postage or freight should be added, as we charge no commission to those ordering through us.

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The Engineering and Mining Journal.....	New York
The Shareholder.....	London, England
Mining and Scientific Press.....	San Francisco, Cal
Canadian Electrical News.....	Toronto, Ont
The Commercial.....	Winnipeg, Man
Mine and Quarry.....	Chicago, Ill
Pacific Coast Bullion.....	Los Angeles, Cal
Canada Lumberman.....	Toronto, Ont
Monetary Times.....	" "
Western Mining World.....	Butte, Montana
Spokane Miner.....	Spokane, Wash
Inland Sentinel.....	Kamloops, B.C
The Golden Era.....	Golden, B.C
The Prospector.....	Rossland, B.C
The Ledge.....	New Denver, B.C
The Kootenaiian.....	Kaslo, B.C
B.C. Mining Journal.....	Ashcroft, B.C
The Advance.....	Midway, B.C
The Miner.....	Nelson, B.C
The News.....	Vernon, B.C

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H. H. Lemmie & Co.....	" "
D. Lyal & Co.....	" "
Bailey Bros.....	Kamloops, "
W. T. Slavin.....	" "
Smith Bros.....	Vernon, "
Gilker & Wells.....	Revelstoke, "
G. Stanley.....	Nelson, "
J. F. Kennedy.....	Kaslo, "
Slocan News Co.....	Three Forks, "
S. W. Brown, Post Office.....	Trail "
J. E. McCarthy.....	" "
Horrocks & Co.....	Rossland, "
J. E. Saucier, Post Office.....	" "
H. S. Wallace.....	" "
Zenith & Co.....	Nakusp, "
M. Skojewski.....	Sicamous, "
A. Skojewski.....	Slocan City, "
Cann & Co.....	Golden, "
G. L. Eastabrooks.....	New Denver, "
Wm. M. Shaw & Co.....	Spokane, Wash
Shaw-Borden Co.....	" "
E. A. Thomas & Co.....	" "
J. W. Graham & Co.....	" "
Hotel Tacoma.....	Tacoma, "
Windsor Hotel.....	Montreal, Que
K. T. Takahashi.....	" "
P. Murphy.....	" "

EDITORIAL NOTES.

IN the July issue of the *Record* we warned investors against investing in the shares of mining companies without fully investigating the character of the investment. We have more than once pointed out that the promoters of companies are not over particular in their statements issued to the public in prospectus form, and the investor should have something more to rely upon before risking his money.

Promoters also are in the habit of inducing influential men to allow their names to appear in a prospectus, and by this means often succeed in securing subscriptions to stock. Now it happens sometimes that the influential men are misled into permitting their names to be used, and therefore

we wish to point out to them that they should make a most rigid examination before becoming connected with any enterprise where the people are asked to subscribe to the stock.

This journal is perfectly free from any connection with mining ventures, and intends to remain so. The object of the *Mining Record* is to assist as far as possible a healthy development of the mining industry in British Columbia, and this can best be accomplished by protecting investors as far as we can from placing their money where it is likely to be lost. There are plenty of legitimate mining enterprises in this province to invest in where good returns are certain, but there are others, purely speculative, which are not entitled to confidence.

If, however, an investor is aware of the risk he runs and invests with a full knowledge of the facts, there is nothing to be said. He takes chances which many men are doing, and may possibly reap a rich return. If he loses he has no one to blame but himself. It is only where a man is induced by misleading statements to invest his money that our warning is applicable.

We have before us the prospectus of the California Gold Mining Company, which, in a number of respects, is misleading, and we propose now to show where the statements made in this document are not represented as they should be.

In the first place, a map is included in the prospectus which shows four veins running through the claim. In point of fact it is not really known whether one of these veins touch the property. The map is purely imaginative so far as this feature of it is concerned.

The California is well situated, but so far little development work has been done on it, although the prospectus states otherwise, and its value is purely problematical. The prospectus states that it has been demonstrated beyond question that the veins passing through the Le Roi, Centre Star, Josie, Iron Mask and War Eagle also pass through the California. As a matter of fact, miners hold a different opinion.

The prospectus states that the Le Roi, War Eagle and Iron Mask have been sold to English syndicates for nearly \$7,000,000. Nothing of the sort has occurred. The mines are said to be bonded, but it is not yet known whether the bonds will be taken up.

The report of W. W. Wishon, E.M., attached to the prospectus, although worded in flowery language, proves nothing, and does not even bind that gentleman to any definite statement as to the value of the mine. He expresses merely his individual opinion without apparently having made any very thorough examination of the property.

We do not say that the claim is worthless, but what we do say is that the promoters of the company have no more idea than the man in the moon whether development work will show it to be valuable or not. All they go upon is the excellent situation of the claim, but its mineral value has still to be determined. Yet they incorporate a proposition of this kind with a capital of \$2,500,000 and ask the public to subscribe \$500,000 of the stock.

We take this opportunity to inform those who are inclined to invest in this company that they are putting their money into what has every appearance of being purely a speculation, and the statements made by the company in their prospectus are, to say the least of them, misleading, as we have endeavoured to show.

It is time that a halt should be called, and a stop put to such speculative transactions where innocent investors are made the victims in any losses arising therefrom. We think that it is the duty of our legislators to step in and prevent misleading and over-coloured prospectuses from being issued to entrap the unwary.

Another thing which, in our opinion, should be the subject of legislation without delay, is to oblige mining companies holding property in this province and incorporated under the laws of the State of Washington, or indeed any foreign country, to also conform to the laws of British Columbia. A number of the companies recently organized here were incorporated in Washington, and it is well known the law in regard to corporations there is very loose. Only the other day we had an example of this in the case of the Gold Hill Company, when the shareholders lost all they put into it.

The mere fact of registering under the Foreign Companies Act of British Columbia does not wholly fill the bill. All mining companies having property in this province should be obliged, as a protection to our people who invest in them, to incorporate under our laws. We trust our legislators will look into this matter and act.

In the case of the California Gold Mining Company we observe that it is incorporated under the laws of the State of Washington. Yet the people of eastern Canada are being called upon to put their money in to develop the claim which the directors may turn round and sell at any time over the heads of the shareholders, to their loss and detriment.

There is no necessity for adopting methods of an unreliable character to develop our mines. Let us unite in stamping out such schemes and the character of our mining investments will have the confidence of the investing world. Let there be a few losses caused through the machinations of mere speculators and the harm that will be done to this country can hardly be estimated.

Rossland is suffering from want of better transportation facilities and some of the mines are in consequence holding back shipments. For this reason alone the amount of ore shipped this year will probably show little, if any, increase over last. A great deal of development work, however, is being done and a number of mines made ready to become shippers, so that next season the output will probably be more than doubled.

Better transportation facilities are all that are wanted to make the mining camps of British Columbia the wonder of the world. It is only a question of a short time for development work to demonstrate fully the great richness of our mines, but until we have railroads development is not prosecuted with that vigour which otherwise it would be. We trust, then, that the government of Canada and our provincial authorities will encourage railroad building in this province by every means in their power, and in this connection we call the attention of our readers to the article on that subject which appears in this issue.

The whole country seems to be filled with prospectors, and the toil and hardships these men endure entitle them to rich rewards. Unfortunately, however, the prospector (without whom there would probably be but few mining camps in Kootenay) is the very person who makes the least out of mining. He generally sells his claim to some middleman for a song. The middleman interests capitalists to develop it, and in so doing often succeeds in realizing a large sum. The capitalists organize a company to operate the mine, and, as a rule, make a small fortune in the operation. Meantime the prospector goes his way, making fresh discoveries, opening the door for the enrichment of the middlemen, capitalists and investors generally, but

seldom enriching himself, often dying poor and neglected. Such is life.

English capitalists have been looking over the Kootenay country or have been sending out agents to do so for them. In some cases these agents have not been the proper men to send out, and it is possible the reports they make to their employers may do more harm than good. Some of them, not being acquainted with the nature of the country they were sent to examine, probably went away with erroneous ideas regarding it. It would have been better for all concerned if they had not come at all.

We would suggest to English capitalists who are inclined to invest in British Columbia to form a powerful syndicate for the purpose of developing mines and buying them if they turn out well. The sending of experts to spy out the land is a slow process and will be found an unsatisfactory plan in the long run. Let the syndicate instead, employ a staff of practical men thoroughly acquainted with mining in America. These men would bond such claims as seemed desirable, and having the means at their back, would proceed to develop them so as to determine their true value. On the result of this development work the syndicate would be in a position to know what to pay, and could either relinquish or take up the bond. Englishmen, it is said, seldom get in on the ground floor. They generally pay a good price for what they obtain. But if they adopted some such plan as here suggested they would not only give an impetus to mining in this country, but would be certain of realizing large sums for themselves. The suggestion is at least worthy of consideration by our friends across the ocean. They have been looking after developed properties, and in some cases have paid large sums for them. Let them try their hand at developing, employing the best men in the country to work for them, and we feel certain the result will be both astonishing and highly satisfactory to them. Let them, in other words, take a leaf out of the American's book.

Mr. Carlyle, the Provincial Mineralogist is making a careful examination of our mining districts and his reports will be looked forward to with great interest by our mining men. It is not unlikely that some people will be disappointed when they read these reports because there is a tendency on the part of mining men very often to over-estimate the value of their holdings. Mr. Carlyle, however, may be depended upon to give the plain, unvarnished facts. It is better for all parties that the truth should be known. The Pro-

vincial Mineralogist, who is a man of great experience and a practical miner, may be depended upon to give a perfectly unbiased opinion in regard to anything he reports upon.

Co-operative Mining.

LABOUR and capital are convertible terms. The latter is only an accumulation of the former. A dollar may be termed a unit of stored labour. Hence, notwithstanding the common misapprehension that these two are in some mysterious way diverse elements, by "nature and inclination" opposed to each other, one is the common factor of the other. Bryan, the Democratic nominee, pointed out somewhat eloquently in his celebrated President-making speech that in a very essential way the man who dug a ditch, held a plough, forged on the anvil or worked at the carpenter's bench, was as much a business man as the man who manufactured agricultural implements, loaded ships with merchandise, speculated in stocks or managed railways. His interest in the economic problems affecting his daily avocations was not a whit less. In the same sense, the man who has two hands, a head and his health is a capitalist, even if he does not possess a dime. He can produce a certain result, the value of which is expressed by so many dollars and cents. It is true that the labourer possesses his capital in the raw state, while the capitalist, using the term conventionally, has it in the manufactured form; or in other words, money is the handy form of labour, which the capitalist has stored up. When capital in this form is invested in any industrial enterprise, a portion of it is converted into labour again, illustrating in a way a familiar law of forces.

That labour is capital, though limited in its possession of individual capabilities, is best evidenced by the results of co-operation by which a number of persons without ready money may, and often do, by combining their efforts, obtain results equal and similar to those produced by the investment of large sums of capital, or by purchasing labour. It is unnecessary here to refer to the achievements of co-operation on the continent of Europe, where it has had its most successful exemplification.

In America it has not succeeded, and, in fact, has not been attempted on anything like the scale it has in the older countries. Here, owing to the restless spirit of speculation, stimulated by the many opportunities which a new country affords, enterprises have been largely individual, and where the principle has been adopted to any extent, it has been the co-operation of capital, *i.e.* money, and not labour, out of which has grown the "combine" and "trust" notable in American affairs. Conditions have not been favourable to the co-operation of labour, except on the basis of organization and union, which, however, is co-operation for purposes of protection, and not in the economic sense. Labour unions represent the co-operation of force, not of productive energies. The reason for this has already been suggested. In a new country, with illimitable opportunities and resources, only partially exploited, the tendency has all been in the opposite direction—a race for wealth, in which every one is in for himself and the devil takes the hindmost. The genius of the



NAKUSP, B.C.



SCENE ON ARROW LAKE—EN ROUTE TO TRAIL.

American is for opportunism which excludes as far as possible his neighbour from sharing his labour or the fruits of his labour. Where labour or co-operation does enter into our system of getting along it takes the form of association on the joint stock principle, the "combine" and the "trust," by which the more favoured in the race can, or hope, to obtain better results, under certain conditions, than would be possible acting independently or in opposition. It is, however, only individualism in a more highly developed form.

Co-operation, as understood and carried out in Europe, has, it is true, been attempted in one form or another at various times on this continent, but most frequently has ended in failure, and to such an extent that the joining of a number of persons of little or no means individually, for the purpose of carrying on any enterprise that requires "capital," as a method is pooh-poohed generally by business men, and not without good cause. However, it is not essentially the principle of co-operation that is at fault. The other elements of success are usually lacking. One of these is experience. In Europe co-operative enterprises have developed from small beginnings through years of vicissitudes to degrees of magnitude, and experience has been acquired. Experience involves safe business methods, without which all undertakings from the smallest to the greatest must fail. The evils incident to the system in America are those of divided management, the selection of untrained, incompetent or unfit officials and a general lack of the thoroughness and disciplinary methods peculiar to, say for instance, German co-operative concerns. In these there must be for success the strictest application of recognized business principles, such as obtains in private firms, to every detail. Given the proper conditions, there is no reason that co-operative methods should not succeed in Canada or the United States as well as in the older countries, but as these are obviously not easy to obtain, it is not safe in a general way to recommend their adoption.

Again, the principle in any country is limited in its application by the character or enterprise to be undertaken, in the same way that Government ownership should be circumscribed. There is a great difference between operating a railway or a system of waterworks, and running a cheese factory or a grocery store. In the very nature of things, these are certain businesses which for all time to come probably will be better and only successfully managed by private firms and owned by individual concerns. On the other hand, without any manner of doubt, there are many industries and trading institutions that in this country can be successfully operated by the co-operation of labour. Mining, I believe to be one of such industries.

I have prefaced the subject of "Co-operative Mining" by the foregoing somewhat lengthy introduction for the reason that if the ground is not well cleared for its discussion the mere mention of co-operation in such a connection would be regarded by the business community as faddy, impracticable, and altogether to be discouraged. Mining, it would be said, and at first sight not without much force, is the one industry of all others that requires capital and lots of it for its development, and that any combination of labour

without plenty of money to assist it, must fail, and lamentably fail, to achieve success. "Capital" has been the Shibboleth of all who saw in mines the greatest future in British Columbia. "Capital!" "Capital!" is the cry of all mining districts. "Capital" is the Alpha and Omega of our hopes for this province.

In order to present the claims of co-operation for consideration, a judicious discrimination must be exercised. There are mines and mines. There are mining districts and mining districts. There are mining countries and mining countries. The conditions of no two are alike. The requirements differ almost as the poles. Physical environments, geological formations, associations of metals, and so on, are constantly and widely varying factors. The relative importance of labour and capital as factors in their development and operation varies accordingly. There are all the gradations that exist between a Treadwell and Anaconda, a quarry and a mine that required a million dollars and miles of shafting and tunnelling to exploit it profitably. There are mines that from ten to fifty men without other capital than their labour might have owned and made pay from the start. There are such properties in British Columbia.

Mr. J. D. Munn, in an interview with a *Colonist* representative some time ago, after a trip to Kootenay, said that the Slocan camp was peculiarly "a poor man's camp." His explanation of that was that poor men could start in making the development work pay for itself. I understand that the Slocan Star, one of the richest properties in the country, recouped the owner as it went along from ore shipments and left him "the velvet" when his claim became a mine. From descriptions of numerous claims in the Kootenay district it is evident that many of them would not require the introduction of large capital for the development, if it were performed by a number of miners associating themselves and "stocking" their companies with labour.

At the present time there are no end of mining companies being gazetted, capitalized all the way from \$100,000 to \$2,000,000, the treasury stock of which are being sold from one to fifteen cents per share. What, it may be asked, is the capital thus secured to be applied to, if not for labour to place their claims in a position where their value may be in some measure determined for the purpose of financing them?

There are thousands of prospectors, miners and others with one or more claims all over the district, and all over the province for that matter, who are struggling to do their assessment work, or paying for it to be done, in the hope of eventually floating them in the usual way and becoming rich. They go on prospecting, or hiring themselves out as miners and labourers to others, or searching for the envied capitalist. Very many of these claims are mere records and will remain so, but many of them are possible mines. By grouping themselves into co-operative companies, their available cash for supplies and material, purchasing stock, and their actual labour, valued at so much a day purchasing stock, these men could develop their own property to the point of determining its value, if indeed the output of the preliminary work in many cases did not supply the necessary money

to carry it on to the actual mining stage. Such a system could be operated on strictly business methods. If more ready money was required than their limited resources could supply, no greater inducement could be offered to the capitalist with solid ideas of finance and of "safe" proclivities than the very disposition of the proprietors and owners of claims to invest their own labour as capital. Thus labour and capital would work conjointly on equal terms and the real wealth producer would become possessor of the profits accruing from his own labour. In other words, labour and capital would become practically, as they are theoretic-ally, one.

Reverting to the question of capital, its incoming from outside sources and in large volume, is not an unmixed good. Indeed, where capital does for people what they could do for themselves, to that extent they are becoming poorer. The present position of the United States is a striking example of this. A high financial authority in England has estimated that the total investment of European capital in that country amounts to the enormous sum of two billion pounds or ten billion dollars, upon which a return of fifty million pounds or two hundred and fifty million dollars is annually sent back. Practically, the United States, in a monetary sense, is helplessly in the power of the European money markets, against which the free silver movement now rampant is nothing more or less than a revolt.

Interest and dividends on mines represent all the profits except those made through promotion or in the way of speculation, which, going out of the country, leave us practically with only the price of our labour and all that is not retained, because in British Columbia we buy our mining supplies almost wholly from the east and south. The enormous flow of gold to London and the immense accumulation of money there are simply the interest on the big blanket mortgage which Great Britain holds on the resources of Mother Earth. No amount of currency legislation or free coinage of silver at any conceivable or possible ratio will alter or stem that flow any more than water will cease to run down hill, until people of the new worlds put their own capital into operation and cease mortgaging their futures for ready money.

An example of the result of pursuing a strictly opposite method to this, based upon the principle of co-operation, is furnished by the Mormon colony of Utah, which, with an average population of 112,000, has, in forty years, spent in improvements without borrowing a dollar, \$542,000,000. In the recent census of the United States they were shown to have owned ninety-five per cent. of the land upon which they lived, as compared with, I think, ten per cent. of the rest of the population of the United States, and are absolutely without debt. As shown by a recent writer in the *Century*, that beyond living, these people have realized nearly \$500 annually for a period of fifty years. If it be assumed that a living equal to that at an ordinary hotel for a family of five is worth \$1,000 per year this and the surplus furnishes an income of \$1,500. That is precisely the income which the purchaser of \$50,000 of Government bonds, netting three per cent., enjoys. The results of such a system in a

country like Utah, the very heart of the arid region of America, are most astonishing.

In a subsequent paper I propose to show how co-operative mining may be carried out on strictly business principles and be successful.

Revelstoke to Trail.

THE high water on the Columbia has done a good deal of damage this summer and the branch line of the C.P.R. from Revelstoke to Arrowhead suffered so severely from washouts that the line had to be closed. In the meantime the steamer *Nakusp* of the C. & K. N. Co. made two trips a week from Revelstoke to Trail.

Revelstoke is the doorway from the north to west Kootenay and is the connecting point on the Canadian Pacific Railway for passengers bound down the Columbia. The town is much scattered and the hotel accommodation is over a mile away from the station. The C.P.R. are now completing a restaurant and dining room at their depot, but what is really wanted is more hotel accommodation in the place. Revelstoke is bound to be one of the most important points on the main line of the railway and is destined to become a large town. It has always been regarded as a suitable point for smelting purposes and some years ago a smelter was erected. But it was built on wrong principles—at least that is the opinion of practical men—and has lain idle ever since. A movement, we are informed, is now afoot to improve the old smelter and enlarge it, and we trust that this will be successful as it is likely to be followed by similar works on a more extensive scale. There is no reason why Revelstoke should not be an important smelting point for the Kootenay mines.

A correspondent sends us the following description of a trip from Revelstoke to Trail. He says:

About five o'clock in the afternoon the C.P.R. officials ran a train down the spur track from their station to the boat, on reaching which a regular scramble among the passengers for berths ensued. The steamer *Nakusp* is a fine, large boat, well appointed in every way. There are two tiers of state-rooms and passengers during the summer months will do well to secure a berth in the top row, as they will find it much more comfortable than below. The current in the river was very swift, and as the steamer swung off from the landing she began going down stream at a great pace. The scenery all around was superb, and as the evening was cool the trip commenced in the pleasantest way possible. Everybody seemed to be out on deck enjoying the air and the scenery as we passed rapidly down the river. About six o'clock a most enjoyable supper was served to the passengers. It was equal to the best meals served on the C.P.R.

After supper it was not long until the boat touched at Arrowhead, which is located on a narrow strip on the river bank with precipitous, almost over-hanging rocks hundreds of feet high immediately behind it. It can never be more than a mere station on the railway. On the way down glimpses of the railway track along the shore could be seen, and it seemed in many places to be in a very bad condition. It would have paid the railway company to have built it on a line several feet higher than it is, for it may be subject to damage from overflow every time the river rises.

On leaving Arrowhead darkness came on and the two great searchlights of the steamer were brought into use. Without them it would be difficult to navigate the Columbia, especially at high water. With them it becomes as light as day ahead of the steamer. During the night Nakusp was passed and in the morning we stopped at a place called Deer Park near which several mineral discoveries have recently been made. Deer Park itself possesses a fine location for a town, being level, with rising ground at the back. Quite a number of buildings are already erected there and if the mines turn out as expected it will be quite a place.

The boat was crowded with passengers and it was amusing to see them, note book in hand, comparing experiences with each other. All seemed to have but one idea—mining—and the number of samples of rock that were produced from side pockets, valises, etc., and passed around for inspection was amazing. Prospectors in their rough garbs, miners, speculators and tourists, all hobbled together and the subject of their conversation was confined to one theme—mining. From the shore we were frequently hailed by prospectors on the tramp and on several occasions the boat stopped and took one or more of those hardy pioneers aboard.

As we descended the river the current seemed to become swifter, and when Robson was reached it was running at a pretty rapid rate. Robson consists merely of a railway station, an hotel and one or two houses, but being a terminal point it may grow to some importance, especially as railway development progresses. The track was partially under water so that the floors of the cars alongside the steamer were even with the deck and made the transfer of freight comparatively easy. One express trunk, however, managed to tumble into the river and the man had hard work to fish it out.

We remained at Robson an hour or so waiting for the train, but on its arrival lost no time in getting away. A short distance down the river we put into a place with a sign having "Montgomery" on it and underneath the words "Lillooet, Fraser River & Cariboo Gold Fields, Ltd.," and in swinging round we managed to break one of the rudder cables. To repair the break took some time and the passengers conceived a very poor idea of Montgomery as the indirect cause of our delay. It was perhaps as well that the rudder cable broke while we were lying at the bank, because if it had occurred while we were in the midst of the swift current below that point it might probably have given the captain a great deal of difficulty in managing the boat.

On leaving Montgomery the boat passed into the grandest part of the river. The scenery along the bank was magnificent and the river seemed like one continuous chain of rapids, the water foaming, circling and breaking every now and then into long lines of crested waves throwing the spray high into the air. Meantime the steamer flew past the banks at lightning speed. To have attempted to make a landing would have been almost impossible; at least so it seemed to us, and we devoutly prayed that no prospector would turn up at the bank and ask to be taken aboard. None appeared, and in a

short time Trail came in sight with its smelter high in the air on the hill overlooking the town.

In order to make a landing the captain turned the boat almost in mid-stream and then headed up to the shore, where we made fast without much difficulty.

The river bank at Trail was partly submerged and one or two of the buildings close to the water had collapsed. Hundreds of people were down to meet the boat and the scene on landing presented a busy sight. The railway track runs close to the boat and the passengers bound for Rossland were congratulating themselves on reaching their destination without much trouble or delay. But, to their disappointment, they learned that the train would not leave for several hours, so they scattered themselves over the town looking at whatever was to be seen. Trail is a busy place and well situated, and as a shipping and smelting point is destined to grow in importance. From recent discoveries made in the neighbourhood it is likely also to become a great mining centre.

About seven in the evening the steamer *Lytton* arrived from Northport and soon after we started on a train of the Columbia & Western R.R. for Rossland. The trip over the switch-back, owing to the crowded state of the cars, was not an enjoyable one, and as we steamed into the station we were thankful that we were at the end of our journey. We went to the Hotel Allan, one of the most comfortable hotels in the country, and being fortunate in securing a room (many having to put up with temporary cots for the night) we dressed and afterwards enjoyed a hearty supper, well cooked and admirably served.

Town of Trail.

TWELVE months ago the spot upon which the town of Trail is built was covered almost entirely with dense forest. There were only three small buildings erected at that time, but they formed the nucleus of what is to-day a town of several hundred inhabitants and which in the near future is destined to become a large shipping, manufacturing and commercial centre for the Trail Creek mining district. Its position on the Columbia River will make it always an important shipping port for the mines. For the same reason combined with others it is the best point for smelting purposes in connection with the great mines at Rossland. Not only this, but as will be seen elsewhere in this issue, there is every prospect of a number of valuable mines being operated almost immediately within easy reach of the town.

Trail is delightfully situated at the bend of the Columbia River. The site is a good one, having a gradual slope from the mountain behind to the river's edge in front. The area suitable for business purposes is not large, although it may be extended up the valley along the Columbia & Western R.R. so as to accommodate a large number of buildings. Across the river immediately opposite Trail is a level plateau, which, if necessary, may be used in the future as an extension of the original townsite. The mountain side will afford beautiful sites for residences, so that there is room for the growth of quite a large city.

What future railway development may do for Trail is a matter of conjecture—meantime it is the

terminus and headquarters of the only railway leading into Rossland, the Columbia & Western R.R., and it is also the point of connection for the steamers on the Columbia coming from the north and from the south.

There are several good hotels in Trail and a number of large stores. Building operations are going on everywhere, the material used being wood, but as good bricks are being made near the town it is to be hoped that brick structures will soon begin to be erected. An electric light and power plant is about to be provided and before many days Trail will be lighted by electricity. The sanitary condition appears to be better than that of Rossland and the healthfulness of the place is all that can be desired.

The same regard for law and order is noticeable in Trail as is the case of other mining towns of British Columbia. There is no gambling and little drunkenness. Tough characters are no more tolerated in Trail than in Rossland. To carry a gun is apt to land the individual in the penitentiary; to use it is very apt to land him with a jerk at the end of a rope.

There is one newspaper, the *Trail Creek News*, a most creditable weekly typographically and ably conducted in every respect.

That Trail will become an important manufacturing point is certain, and a commencement to that end has been made by parties who entertain this view. The Mac Machine Company, of Belleville, Ontario, large manufacturers of mining machinery, will have branch workshops established in Trail by the 1st of September. The townsites people have given them land and the contract for the buildings is being pushed to completion, and the machinery for the shops is on the way. The works at Trail will consist of lathes, planers, drill presses, bolt machines, scrapers, emery wheels, etc., etc. They will be equipped with other machinery of a minor description and it is intended to add a foundry later on. The branch of the Mac Machinery Co. at Trail will be devoted chiefly to repairing of mining machinery, which will be a boon to the mining companies who hitherto have experienced some difficulty and delay in having to send a distance for any repairs to their machinery. The Trail shops of the Mac company will be under the superintendence of Mr. Wm. McMillan, who is a master mechanic of large experience, having had charge during the past eleven years of some of the largest plants in the United States.

E. S. Topping the Father of Trail.

MR. E. S. TOPPING is indeed the father of Trail. But for him it is doubtful if there would be a camp of any importance in the district at the present time. He from the first believed in the richness of the mineral deposits found in the mountains of Trail Creek and encouraged others to do likewise, often assisting them in many ways. A miner himself of great practical experience in numerous parts of the United States, he saw where others remained blind and as a result of his confidence and perseverance we have to-day in Trail Creek one of the greatest mining camps of America. It is well, then, that Mr. Topping should be named the "Father of Trail."

Born in Suffolk County, New York, in 1844, he is now fifty-two years of age. When quite young he became a sailor and remained at sea for eleven years, coming West to Wyoming in 1867, where he obtained a contract in Utah on the Union Pacific road then building. The following year Mr. Topping went into mining, his first experience being in the Sweetwater mine, Wyoming. For some time the subject of our sketch had many ups and downs until finally in 1870 he went to Montana. He then began prospecting in the Yellowstone Park, in the course of which he discovered one of the great geyser basins in that now famous locality. The basin discovered by Mr. Topping is named the Norris. It should have been christened "Topping's Find."

At this time of his career Mr. Topping spent the summer months prospecting and during the winter he trapped beaver, set poisoned baits for wolves, doing at intervals a little fighting with the Indians. A noteworthy incident occurred to him about this time. In the winter of 1874-75, while pursuing his vocation as a hunter and trapper, he placed wolf baits on the very ground where the following year Custer and his band were totally annihilated by the Sioux. He also took part in a number of the famous Fort Peace fights with the Indians and in 1876, having gone from Montana to the Black Hills, he, in the succeeding fall and winter started out as a packer with Crooks' expedition against the Sioux. General Crooks, however, soon found out that Mr. Topping was a skilled scout, and as such he was afterwards employed, undergoing many hairbreadth escapes while on the force. During this time he also acted as correspondent for several newspapers, putting in odd time at this work.

Mr. Topping now remained in the Black Hills and made some money in speculation and in quartz and placer prospecting. He traversed the Big Horn range before there was a settler in it and prospected in the Rockies from Sweetwater to Yellowstone at the head of Snake River on the north.

In 1883 he returned to Montana and for a time worked as a writer and collector of facts for Bancroft's history of that State. Mr. Topping also the same year published a work of his own entitled "Chronicles of the Yellowstone," which was much sought after and became one of the popular books of the day. This literary experience was followed by four years of bad luck in the Cœur d'Alene from 1884 to 1888, when Mr. Topping, getting between two good belts of mineral, worked on poor ground and wasted four years of his life. In 1888 he came to Nelson and soon after his arrival met with a serious accident. A revolver dropping from his pocket exploded, sending the ball through Mr. Topping's wrist and shattering the bone. The result was a forced confinement to bed for some time and the spending of the small amount of money he had saved.

But undeterred by misfortune Mr. Topping, as soon as he was able to move about, began to work as a fisherman, although he could only use one hand in the management of his boat and of his fishing lines. Notwithstanding this he actually cleared \$100 per month at fishing, and soon had enough to set him on his legs again. He now took charge of a store, was appointed recorder and con-



E. S. TOPPING, ESQ.—THE FATHER OF TRAIL.

stable and was in fact "the Government" of West Kootenay.

In 1890 Joe Bourjois and Joseph Morris discovered the large bodies of sulphide ore which since then have become famous. They brought samples to Nelson and showed them to Mr. Topping, who had then a small store of his own. On having the samples assayed they ran only \$10 in gold and the two Joes became discouraged. But Mr. Topping stood by them at this time and counselled them not to drop the discovery they had made. He advised them to return and put a few shots into the rock and promised to follow them and make a test of the result. The men followed Mr. Topping's advice, and as a result staked out five claims. They then offered him one claim if he would pay the recorder's fees on the whole number. Mr. Topping accepted and was given the Le Roi which he would, in any case, have chosen had they given him a choice of the five. This claim he named Le Roi in honour of the two Frenchmen who had discovered it. The subsequent assays of the claims turned out much better than the first, the Le Roi being \$37 to the ton; War Eagle, \$25 to the ton; Centre Star, \$25 to the ton. The report of these assays which soon spread attracted prospectors from all parts, and the hills were full of them. From that time Trail Creek began to be famous.

Mr. Topping now decided to stake out a claim of 320 acres of land at the river side, where Trail stands to-day. On his way from Nelson to do this he met a ferryman, who, observing the axe tied to the saddle, made a good guess as to what Mr. Topping was after. The ferryman made up his mind to be first on the ground, and taking his canoe paddled down river and managed to get in ahead. Accordingly, when Mr. Topping arrived he found the ground staked and was obliged to buy off the man by paying him \$50. Mr. John R. Cook, who happened to be present, witnessed the transaction and in fact went security for the payment of the money, otherwise Mr. Topping would have had further trouble about it.

Having secured the land, Mr. Topping went back into the mountains and located the Iron Mask, and if he had not been taken ill would probably have located a number of other claims. He then returned to Nelson, sold out there and came to Trail in company with Mr. Hanna, who started an hotel, which he conducted for several years.

In 1891 Mr. Topping took the oath of allegiance and became a Canadian. He has never regretted the step, and to-day no one has a better word to say for Canada than Mr. Topping. "I like the country, I like the people, and I like the laws," is his remark.

Trail was surveyed in 1891, and the same year some Victoria men bought several blocks, which they do not regret having done. In the same year Mr. Topping bonded the Le Roi for \$30,000, but becoming dissatisfied with the management he afterwards sold out the bond and all the interest he had in the mine for \$11,000. To-day it is said the same property is bonded to English capitalists for several million dollars.

In 1895 Mr. A. F. Heinze having contracted with the Le Roi people to smelt 75,000 tons of ore, Mr. Topping decided to him forty acres of land on the hill and one-third interest in the main part of Trail as an inducement to build a smelter. The smelter

was built and so was the railway connecting it with the mines at Rossland, and Trail, from virgin forest, jumped in less than twelve months into a thriving, bustling town of about two thousand people. In five years from now it will be a city and in the centre of it should be erected a monument in honour of its founder, E. S. Topping.

Mines Near the Town of Trail.

MINING in the immediate vicinity of the city of Trail has not attained the prominence that our sister city, Rossland, enjoys. Neither has the town or surrounding hills the age of Rossland. When one stops to think that where stands the little city of Trail only seven months ago was a tree-grown flat of land with one house, a steamboat landing on the Columbia River, a perfect wilderness, they will appreciate the efforts of the people in building, mostly in the winter months, too, a town of a thousand people, ten hotels, banks, printing office, stores of all descriptions, terminus of the C. & W. Ry., and the home of the British Columbia Smelting & Refining Co. This plant has a capacity of 500 tons daily. When age comes to us there will be many changes. At present there are many mines, or rather prospects, on the hills that surround the town. Work is being done on almost all. Many are making fair showings, and a few that have attained depth, mining men say, will make mines. The ore is the same character, the value runs the same and in all respects can not be found to materially differ from the prospects that grew into mines in Red Mountain.

The town is surrounded by many camps, Champion, Murphy, Sullivan, Beaver, Nigger, China and other creeks having camps that are tributary to Trail. All are being worked and many rich samples find their way to town. If the ore was not in place the samples could not be found.

Among the best prospects are those on Lookout Mountain.

One of the most promising prospects in the vicinity of Trail is the R. G. Sovereign, under bond and being worked by General Chas. S. Warren, of Butte, Montana. The bond is for \$35,000. The second payment of \$2,500 is about due. The showing at present is very good; the shaft is down thirty-five feet, no walls and in solid ore, the general average being \$16.40. The lower tunnel looks equally well and may prove as valuable as the shaft. The ore is a white arsenical iron; the capping is the same as many of the shipping mines in Rossland, and the owners are sanguine of a shipper soon. There are at present twelve men at work.

Joining the Sovereign, lying up the hill, is the Joker, which has an immense iron capping that has been stripped for twenty-seven feet. The owners are sinking on the capping and are encouraged by the assays and showing that they will soon break through the cap and come into the ore body. This ledge can be traced for several hundred yards across the claim and several places have been uncovered, showing the capping. The assays from what has been secured (nothing but the capping) have run as high as \$12 in gold, one per cent. in copper and a dollar in silver. This is considered to be one of the very best prospects on Lookout Mountain. An option for sixty days has been

given to W. E. Blackmer to sell for \$50,000 cash. Mr. Blackmer has a number of eastern friends who are investing large amounts in Trail and Rossland properties. The chances of a sale are good, which will be the largest spot cash price ever paid in the Trail Creek district for a prospect. The showing on the Sovereign makes the Joker valuable property.

The Wolverine has been incorporated for \$500,000. The work on this property proves it to be good. The ore taken out runs well; the vein is widening out as they descend, and form all appearances the incorporators will have a mine with a few months' work. Stocks sell for five cents.

The Imperial has been incorporated. The stock is held by Rossland parties. The work on this consists of an opening done in assessment work, but the showing was such that the owners were induced to incorporate, and it is understood work is being pushed with vigour.

The Red Point was sold on the 15th for \$20,000. J. A. Perkins, the locator, retains an interest. This is one of the oldest locations in the camp. The tunnel shows up nicely; the rock is highly mineralized and runs well in gold and copper. Rossland parties have this property and are working it.

There are a number of other properties on this mountain that have not been developed sufficiently to make any special mention, except that the owners are pleased and are pushing as rapidly as their means will permit either in shaft or tunnel the Stemwinder, Debbs, Western Spy, Little Joe, Emma, Oyde and many others.

At this time the Norway attracts the people who are hunting free gold properties. This is half a mile from Trail. The ledge is white quartz in which flecks of free gold can be seen without the aid of a glass. The vein is two feet wide and has been traced a thousand feet across the claim. A contract for a fifty-foot tunnel has been let and work is going on. The indications are good for a free gold property.

On Murphy Creek, tributary to Trail, is the Mine-Ha-ha. A sixty-foot tunnel has been pushed into the mountain with very favourable results. This mine is incorporated and stock is selling for ten cents. Two shifts of men are working at present.

The Iron Chief group is on this creek. This group consists of five promising prospects. Assays from the surface workings show \$16 in gold. At present a bond is being negotiated and should go through. Eastern capital will begin vigorous work. The Iron Chief shows ore from the grass roots and of fair quality.

The Como has a showing so well defined that the ledge can be traced for hundreds of yards. From this claim the owner has melted in his frying pan the lead and silver ore from croppings. Samples have been brought to Trail that have excited considerable interest. The group promises something rich.

B. M.

Columbia & Western Railway.

MR. F. A. HEINZE having entered into a contract with the Le Roi Mining Company during 1895 to smelt 75,000 tons of ore from the mine, he at once began the construction of a smelter at

Trail. As the contract required that the ore should be taken from the dump, and as the cost of hauling it by wagon ranged from \$2 to \$5 per ton, the question of transportation became an important one. Mr. Heinze then conceived the idea of constructing a mule tramway, and for that purpose had surveys made which showed that an eight-mile tramway, having a six per cent. grade, would answer the purpose.

Accordingly, a charter was obtained by Messrs. A. E. Humphreys and Martin King for the Trail Creek Tramway, which was afterwards transferred by them to Mr. Heinze, who brought Mr. F. P. Getelius from the East to take charge of the undertaking. That gentleman, having much experience in such work, at once saw that a railway could be built and operated to greater advantage than a tramway, and chiefly through his suggestions new surveys were made which demonstrated that a fourteen mile railway could be built and reduce the gradients to four instead of six per cent., a decided advantage in hauling. The line thus surveyed ran from Trail landing to the Le Roi mine, tapping Rossland *en route*.

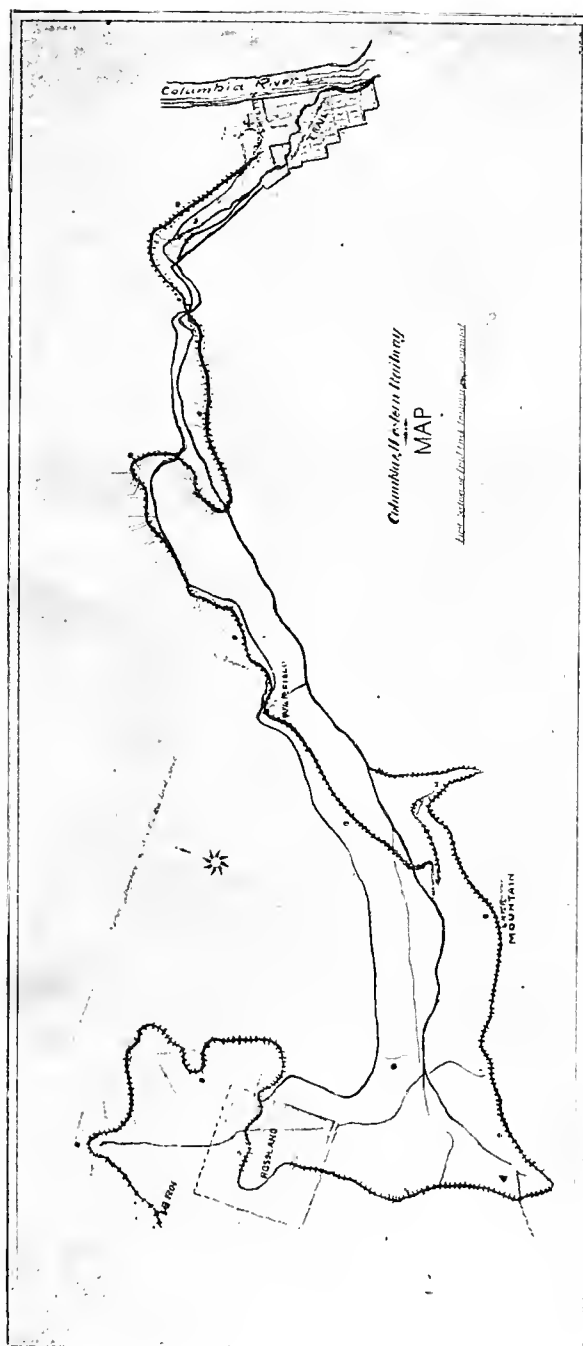
The surveys of the railway line were commenced on the 1st of November, 1895, and the contract for construction awarded on the 25th of the same month, so that Mr. Heinze did not take long to decide in favour of the railway as against the tramway. Grading began about the 20th of December, and although the construction of the line required great engineering skill it was opened for traffic on the 5th of June, 1896, having taken only six months to build. The work throughout is of the most substantial character and will compare favourably with any mountain road on the continent.

A description of the route, showing the difficulties that were overcome, may be interesting. The Trail terminus, where the track runs along the banks of the Columbia River, consists of a freight and passenger depot built on modern plans and conveniently arranged. From this starting point the railway crosses a trestle twenty feet high and 1,000 feet long to where the repair shops of the company are situated. From here the line extends up the valley of Trail Creek about one mile and a half, and from this point the train switches back over a four per cent. grade for half a mile, which brings it to Smelter Hill overlooking the town of Trail.

Here the large plant of the British Columbia Smelting & Refining Company is located, adjoining which are the general offices of the Columbia & Western Railway, now approaching completion. These offices are built on the latest and best plans, heated with hot water, fire places and every modern convenience. They consist of twelve large rooms, with a spacious vault for the use of the company.

The train now starts fairly in the direction of Rossland, having been backed up the incline to Smelter Hill, and crosses the only level part of the road, a distance of about 1,000 feet, after which comes a steady climb of four feet to each 100 feet of track. A trestle eighty-one feet high and 200 feet long is then crossed, and from this point can be seen the dam which is being completed for the Trail Water, Light & Power Company, of which Mr. Heinze is also president.

The line here follows Trail Creek for about a



MAP OF COLUMBIAN & WESTERN R.R.

mile to where the stream is crossed by another bridge forty feet high by 250 feet in length. This bridge is built on a twenty-five degree curve and is therefore almost a semi-circle, thus causing the train to head towards Trail, which it does for a distance of half a mile up a steep ascent until the track takes another semi-circular course and again leads towards Rossland. At this point huge piles of engine fuel (wood) are kept for the use of the road.

The line now approaches what was perhaps the most difficult and costly part of construction. For some distance it winds round a rocky bluff, the road having been literally cut out of the mountain side, and then a third bridge of about the same dimensions as the last mentioned is crossed to where the Tigers switch-back commences. The train is backed from here for about half a mile to a point where the ore from the Crown Point and adjoining mines is delivered. From this the train steams towards Rossland along the south side of Trail Creek at an elevation of about 200 feet above the stream.

The railway then passes in close proximity to a number of mines whose names are familiarly connected with the Trail Creek district, and it is the intention of the company to build spur lines to all the principal points where ore is shipped, so that this railway will be an important feeder to the mines. It being a narrow gauge, makes this all the more easily accomplished.

The line continues along the south side of Trail Creek to a point about a mile and a half south of Rossland, where the stream is again crossed and the road leads northward in a straight line for some distance. Rossland, however, being built on a comparatively high bench, the railway, in order to gain an easy entrance to the city, is obliged to wind round the hills to the south of the townsite, and finally the train pulls up at the station, a neat building of modern design and arranged as a combined passenger and freight depot. This brings us to the end of the line so far as the passenger service is concerned, and from the time the train leaves Trail till it pulls up at Rossland it is one panorama of magnificent scenery and interesting sights the whole distance.

Around the Rossland depot a series of side tracks are arranged for the convenience of the railway and shippers, so as to provide ample accommodation for a freight delivery service. The line now extends to the Le Roi mine, passing around Paris Belle Hill, along the foot of Monte Christo Mountain, and crosses Centre Star Gulch to the ore bins of the Le Roi mine, the whole distance from Trail being fourteen miles.

The short but important line of railway which we have just described is now the first division of the Columbia & Western R.R., the Trail Creek Tramway Company having transferred to the former their interest in the road. The rolling stock at present in use consists of sixty cars and two locomotives, and in addition to running two daily passenger trains each way the company transports about 150 tons of ore per day between the mines and Trail. The mines shipping by this route are the Le Roi, War Eagle, Iron Mask, Poor-man, Mayflower and Crown Point, and by next season it is expected a large number of others will

be shipping, preparations to that end now being made.

From the first conception of a mule tramway this short line of railway has become the nucleus of a large and important system, the Columbia & Western R.R., of which Mr. Heinze is now president. The object of this road, in addition to serving the Trail Creek district, is to tap the Boundary country, where the mines are of a most promising character and to connect the mining regions of the south with the farming lands along the Kettle River and Okanagan Valley, the whole line eventually extending from Trail landing to Penticton. The probable route of this line will be from Trail to Rossland along the foot of Christiana Lake to the Kettle River and skirting the latter to a point near Rock Creek. The road will then cross over the divide between Kettle River and Okanagan Lake to Penticton, where connection can be made with the C.P.R. *via* the steamers on Okanagan Lake. It may be said in conclusion that there are three surveying parties in the field on this route in advance of probable early construction. Mr. Getelius, who came last year to take charge of the undertaking when the idea was to build a tramway, and who managed the entire construction of the new line herein described, is now General Superintendent of the Columbia & Western R.R., Mr. F. A. Heinze, the president, being the moving spirit in that great and important enterprise, one indeed, which, when built, will mean much to the whole southern Kootenay country.

Rossland.

ROSSLAND is situated literally on the mountain side on a bench high above the valley by which the railway approaches it. The train has therefore to wind around the hills to the south of the townsite in order to gain an entrance. The Columbia & Western enters it from the south, and the Red Mountain Railway, which is now building, will be into the northern suburbs about the 1st of October, while the Canadian Pacific has a line surveyed to run through the town from east to west. Rossland is therefore destined to become an important railway centre. In 1892 it was staked out as a pre-emption by Ross Thompson, after whom it is named, but it was not until 1895 that the town began to attract attention. The population then was about 300, but suddenly grew, people pouring in from all parts, until at the present time it is estimated at over 4,000. There is much of a floating population it is true, but day by day the permanent residents are steadily increasing in numbers. The townsite proper is rather broken, although the principal street, Columbia avenue, when cleared of some rocky obstructions and properly levelled, will present as fine an appearance as any of the leading thoroughfares in Vancouver. Back of the town on ascending a short but rather steep hillside, a broad and level plateau is reached which undoubtedly will prove to be in the near future the best part for building purposes. At present it is covered with small cabins, shacks and other small buildings, and as the land has been declared by the courts to belong to Mr. Corbin, of the Red Mountain Railway, there may be a lively time in removing or settling with those squatters. We

understand the Red Mountain Railway is to have its station on this plateau and when that takes place an attempt will probably be made to have better buildings erected than are there at present. The sooner the question as to who are to own the lots in this section of the town is settled the better it will be for all concerned.

Although Rossland is not yet incorporated it can boast of a fine system of water works, a good fire protection and an excellent electric lighting plant. The great trouble now is that the whole town is built of wood, there being not a single brick or stone structure in it. But a commencement is to be made this summer in a brick extension to the Hotel Allan, and following that it is to be expected other brick buildings will be erected. There are two banks already established, the Bank of Montreal and Bank of British North America, both of which should be located in more substantial buildings than they are at present. There is very little doubt that they will follow the lead of the Hotel Allan and that before another season Columbia Avenue especially will be able to boast of many fine brick and stone structures. Columbia Avenue is, even now, a very fine street, broad and well laid out with good plank walks, on each side lined with a number of fine stores, handsome offices, hotels, etc. People are beginning to erect nice residences around Rossland, and before another year the whole character of the place will be changed.

For a great mining centre, which it really is already, it is a wonder. Not a dance hall or rowdy place in the whole town, and although the streets are crowded from morning to night with miners, prospectors and others there is not the least sign of lawlessness. The writer, during his few days' stay, saw less drunkenness on the streets of Rossland than is to be seen on the streets of good, old-fashioned Victoria. He was told that there were two policemen somewhere around who were paid by the Provincial Government, but he never cast eyes on them. There is also a night policeman, who is employed by the residents of the town, but he does not appear to have much of a contract on his hands to keep order. There are some disreputable women in the place but evidently they know enough to behave themselves and seldom show their faces on the street. Saloons are plentiful; so are eating houses, and there is a large bowling alley, but all these places are kept in a most orderly manner. Yes, Rossland is a wonder as a law abiding place. There are three newspapers published in the town—good ones so far as giving mining news, reliable or otherwise, and creditable from a typographical standpoint. Parties outside the camp and interested in it cannot do better than subscribe for one of these three local papers. They are named the *Miner*, the *Rosslander*, and the *Record*, the latter of which issues a daily edition. There are a number of good hotels, Rossland being well provided in this respect. The one of our experience is named the Hotel Allan, a most comfortable house, kept by Mrs. E. Allan. It is without doubt one of the best kept hotels in British Columbia, and is a pleasant surprise to all who visit it.

Rossland is not incorporated, and the reasons given for its not being so are many and various,

but it is a great pity that the people should be so short sighted. The sanitary condition of the town is not good and never will be until incorporation takes place.

To think that Rossland is surrounded on all sides by hills rich in gold-bearing quartz and that it probably stands on rock of the same character; that already it has about a dozen shipping mines, three or four of which are paying large dividends, and that before the end of another year there may be fifty shippers all pouring out their treasure. With such a present and such an immediate prospect before it, who can tell the proportions to which the town may grow within the next five years?

Within sight from Columbia Avenue high up on the mountain are several of the great shipping mines, and in every direction preparations are being made by bringing in machinery and otherwise to place a number of others on the shipping list. This season is largely one of development; next year will be one of output—an output which, from present appearances, is likely to be a surprise to people who have not visited the district.

The rapid growth of Rossland until recently is largely due to Americans, who are also to be credited with the greater part of the development in the mines of the district, but Canadians and Englishmen are beginning to flock in and will soon, if they do not already, outnumber all other classes. In Rossland you meet all sorts and conditions of men, from the rough prospector to the capitalist. Lawyers, doctors, commercial men, bankers, etc., are to be seen on equal terms with men, who, in an eastern town, would be regarded as toughs, but who in reality are warm-hearted, honest and honourable men, although dressed in the rough garb of prospectors. They are, perhaps, the owners of claims which, like the Le Roi, are worth millions but which they are prepared to sell for a few hundred dollars, and the well-dressed gentlemen are after them.

What more is there to be said about Rossland? It has churches and schools, the Salvation Army and a phrenologist who is practicing at so much a bump. The town is established to stay, and if a fire swept it off the face of the earth, as in the case of Cripple Creek, it would be re-built better than ever in less than six months. Nothing can stop it unless one of the great mine shafts should strike a volcano and blow the whole camp to smithereens.

Tramp Around Rossland.

LEAVING Rossland immediately after an early lunch in company with a friend who was well posted, the writer made his way one pleasant afternoon into the dense bush surrounding the city. The course taken was to the south down into the valleys below Rossland and from which the scenery around is very impressive. As we tramped along it was surprising to note the number of small dwellings, some built of logs and others of sawn or split lumber, which have been erected, mostly by squatters in the immediate vicinity of the town. No idea can be formed of the population of Rossland unless one takes a ramble around the suburbs and then it dawns upon him that this great mining centre has indeed a large number of inhabitants.

Not far from the business part of the city on the trail we were pursuing we came across a number of powder houses in rather close proximity, we thought, but which our friend told us, were admirably situated for safety from fire. We then came to one of the two graveyards adjoining the city in which were five graves, three of which are the last resting-place of the miners who were killed in the explosion at the Centre Star on the 14th of March last. From here we wended our way over a narrow and not very even path to where a brick yard has been started by Messrs. White & Humber. Mr. White is well known in Victoria, having for several years managed the Messenger Service in that city, and his partner was lately of the firm of Humber & Sons, the well-known brick-makers. He has now gone into brick-making and is destined not only to be instrumental in building up Rossland more substantially than it is at present, but from all appearances to build himself a fortune in the near future. He and his partner have a fine bed of clay from which bricks of the very best quality are now being made. Brick-making is a most important industry to Rossland, which at present is composed altogether of wooden buildings, and the sooner the erection of brick structures is commenced the better it will be for the city. The danger from a disastrous conflagration is very great and there is not a resident of Rossland who does not dread it. The water supply, it is true, is excellent, and can easily be increased, and every precaution is being taken to guard against fire, but the experience of several places in Kootenay and the burning of Cripple Creek is a lesson Rosslanders should take to heart without delay. Messrs. White & Humber are therefore engaged in a very important industry. They have now about 50,000 bricks burned with about as many more ready for the kiln and are able, with their present appliances, to turn out about 8,000 per day. The yard is a mile and a quarter by road from the city—quite close enough—and the clay turns out a quality of brick better than that made in Vancouver. As we passed along from the brick-yard we observed a number of claim and Crown grant stakes and finally pulled up at the Palo Alto mine. Here we saw where the vein was first uncovered and a little lower down where a shaft had been sunk. Nothing is being done at present in the way of further development, but a short distance down the hill two men were engaged uncovering the vein of the San Joaquin, which is showing up well. From these two mines we descended the hill till we struck the old Dewdney trail and followed its well-beaten path a short distance, when we turned to the left and began the ascent of the mountain. We now came to a herd of cows belonging to the milk ranch, which is located half way between Trail and Rossland, the proprietor of which has over 100 cows, and supplies Rossland with milk. His business, from all accounts, is a veritable gold mine to him. I never saw a better lot of stock than he possesses, and, by the way, as we passed a few of them were making short work with the supplies of a mining camp, the proprietor of which was absent. A short ascent now brought us to the Commander mine, where, by the aid of machinery, development work is being carried on vigorously. The shaft is down

ninety feet and the ore is improving. We examined some of it as it came from the shaft and certainly, from all appearances, the proprietors have reason to be pleased, especially as the vein is widening as work progresses and the value of the ore improving. A compressor plant is about to be erected at this mine and operations conducted vigorously, so that it may be looked upon as a sure shipper before long. There are at present twelve men at work and preparations are being made for the employment of more hands. From the Commander we now commenced a steep ascent over a rough trail, passing on the way the survey stakes of the Canadian Pacific Railway, and then the climb up the mountain side became rather arduous to one not accustomed to it. The writer envied his companion who, with his rough, nail-shod boots and tough clothing, skipped ahead, brushing aside the branches with ease and evidently regarding the whole thing as mere child's play. Not so the writer, who began to regard the undertaking he had entered into as a serious matter. It became a question with him how long his wind and strength would last. Finally, however, the top of the steep ascent was reached and rest taken at the side of the Columbia & Western Railway track. We now followed the latter for some distance and again observed numerous cabins of squatters scattered here and there, some of them evidently belonging to railway men and others to miners. Just before we struck the railway track and while ascending the steep hill leading to it we met a man who asked if we had seen any huckleberries. He said he was "hunting" for them. This was a new experience, to find a man hunting huckleberries in a country where everybody else was hunting for gold mines. Was he under the impression that gold mines are to be found where huckleberries grow? Prospectors should look into this matter.

Making a short cut across a bend of the track we called at the Golden Chariot mine, where they have just put in a hoisting plant, and a little further on we came to an abandoned cutting of the Enterprise, the work of developing being now prosecuted above on the hill. Regaining the track, on turning a bend of the railway a scene of unusual activity presented itself. Below us was the compressor plant of the War Eagle, alongside of which is the opening of the Iron Mask with a large quantity of ore on the dump. Right below us the Virginia was putting out its ore and on the opposite side of the gulch beyond the Iron Mask the works of the Centre Star were busy. We now crossed a bridge and above it could be seen active preparation in progress at the City of Spokane for the erection of machinery. This mine will, in all probability, be an important shipper next season. Crossing the bridge we now followed the track and passed an opening where a new vein is being opened close to the rails. Machinery is being put in and in all probability the owners feel that they have a second War Eagle or they would not go to the expense they are doing. Leaving the track we now mounted the hill side and soon found ourselves at the famous War Eagle mine. It is mined by tunnel and an immense quantity of ore lay on the dump awaiting shipment. Workshops, offices, dwellings for the officers and workmen surround the opening to the mine. These we could see, but over the opening to the tunnel a notice was posted:

"No admittance." From the War Eagle a few steps brought us to the Le Roi, where we were fortunate enough to meet Mr. Moynahan, the superintendent of the mine, a thoroughly practical man, whose management of the work has greatly contributed to the success of the mine, which is now the greatest shipper in the camp. The ore dump was a sight to see and both wagons and railway trucks were being loaded with ore for transport while we were there. A shift of men was being made, and their task of working hundreds of feet below the earth's surface did not seem to be a lot to be envied. It takes just seven minutes to go from the top to the bottom of the Le Roi shaft, fresh air being supplied by means of the compressor. This is a wonderful mine and its extent can not be told. Its value is becoming greater each day, for, as Mr. Moynahan said, the ore gets better the deeper they go. Here is the end of the Columbia & Western track and beyond is the Josie, while high above on the hill side is the Poorman mine, the ore of which is turning out exceedingly well.

During the tramp we had been able to witness the progress of mining from the claim stake of the discoverer to the gradual developing work on mines, winding up with a sight of the greatest mine in the camp, which is turning out hundreds of tons of ore and paying handsome dividends to its shareholders with monotonous regularity.

A heavy thunder storm now broke over our heads, and taking to our heels we scampered down the hill as fast as our weary legs would permit, and in less than ten minutes we were safely lodged in our comfortable quarters at the Hotel Allen after having enjoyed a most interesting afternoon's tramp.

Red Mountain in the Trail Creek District.

FOR the benefit of those of our readers who have not yet visited Rossland, a brief description of the principal mines and prospects in the vicinity of the town may prove of interest. Within the limits of a letter of reasonable dimensions it would of course be impossible to devote space to all the claims within even a radius of one mile of the town, so that the following attempt to enumerate the best known and furthest developed properties must be taken in the spirit in which it is made and must be understood to be without prejudice to the merits of the numerous other claims of which no mention is made.

It may be explained, to begin with, that the mineral claims around Rossland are regularly spoken of as belonging to one of two main divisions—the South Belt and the North Belt, according as they happen to lie south or north of the town. In this article we will confine our attention to the claims in the North Belt as being the more important and more highly developed. Standing on Columbia Avenue, the main business street of the town, and looking north, the view is at once obstructed by the prominent outlines of the three now well-known mountains, Red Mountain to the north-west, Monte Christo due north, and Columbia Mountain to the north-east. The first named of these three is, of course, very much the best known, and it is also the most prominent in size and bold in outline. It owes its name "Red" to

the deep iron stains visible on its surface, which are particularly noticeable where the timber has been burned or cleared away on the western side of the hill. On an elevated plateau some three or four hundred feet above the townsite of Rossland are to be seen a group of buildings conspicuous enough during the day and still more noticeable at night, when their brilliant lights shining all night long form a most picturesque and attractive landmark. These are the engine-houses, cabins, boarding houses, and managers' residences of the famous War Eagle and Le Roi mines, whose magnificently successful development has been the means of attracting attention to Rossland and "forcing" the mere cluster of cabins of eighteen months ago into the prosperous town of 4,000 inhabitants of the present day. The history of the Le Roi and War Eagle has been so often written that it is unnecessary to dwell on it here. Suffice it to say that here are the two mines *par excellence* of the camp. The object of a mine is to extract precious metals or minerals for the enrichment of its shareholders and for the benefit of the community, and judged by this criterion, here are two mines of a very high order of excellence. Both are equipped with expensive modern hoisting and drilling machinery and compressor plants, and both have paid large sums in dividends in addition to the heavy outlay consequent on development work and the purchase of machinery. The Le Roi mine has a huge pile of shipping ore stacked on the dump which is being daily transferred by the cars of the Columbia & Western R.R. to the Trail smelter. The War Eagle management have devoted a great deal of time and expense to extensive development work with the result, we are informed, that they have enough ore in sight to pay out at least \$200,000 in dividends. Lying immediately east of the War Eagle are the Iron Mask and Virginia claims which are owned by distinct companies, but are being worked under the War Eagle management and by the War Eagle compressor plant, an arrangement which, it would seem, might be carried out to good effect in a good many other cases. The two last mentioned claims join one another at the ravine known as Centre Star Gulch, which forms the dividing line between Red Mountain and Monte Christo Mountain, and which provides water for the War Eagle compressor plant and for that of the Centre Star mine. On the western slope of this ravine, being the eastern side of Red Mountain, the Iron Mask tunnel is being driven straight for the War Eagle line, a distance of about 2,500 feet, while immediately opposite on the east side of the ravine another tunnel is being driven through the Virginia ground. The Iron Mask is now shipping a quantity of high grade ore, some of which has run \$100 to the ton, and the claim is undoubtedly regarded as one of the most promising in the camp. A few hundred yards down the gulch and within sight of the Iron Mask workings are the engine house and buildings of the Centre Star mine, which, under the management of Mr. Durrant, who is himself heavily interested in the mine, has been developed with most encouraging results. The company is not at present shipping ore, though they are understood to be working on a pay chute of high grade ore and are probably waiting the completion of the Red Mountain R.R. to Northport to commence shipping operations, or it may be

that they are contemplating the erection of a plant for the treatment of their own ore. At all events, the Centre Star is generally regarded as a most valuable property, and the fact that the stock is practically not on the market and cannot be bought is a good indication of the confidence which the owners have in their mine. On a level flat at the southern end of the Centre Star Gulch are the buildings and plant of the Nickle Plate, where a considerable amount of work has been done with the help of a steam hoist, pump, etc., and where very encouraging results have been obtained. Travelling northwards once more up the gulch and skirting the east slope of Red Mountain the visitor passes under a bridge of the Columbia & Western Railway and finds himself on the ground of the City of Spokane claim, and immediately in face of their buildings and the mouth of their tunnel, which, it may be remarked, is probably the best and most solid piece of construction in the camp. The transactions that have taken place with reference to this claim are probably familiar to your readers, but at the risk of repetition it may be stated that the property was examined by Mr. Jamieson for the Lillooet, Fraser River & Cariboo Gold Fields Co., and was bonded by them some months ago for \$65,000, on which sum a cash payment of ten per cent. was made. The company at once set to work on the claim, and having driven in about seventy feet, were fortunate enough to strike a fine body of ore of a satisfactory average value from which already a quantity of ore has been extracted and is now on the dump. English capital, as the *Rossland Miner* remarked, is, of course, no better than any other capital, but as the same paper proceeded to argue, it is highly desirable in the interests of the camp that the attention of London, the greatest mining market in the world, should be attracted to the Kootenay and should be encouraged by such results as have been obtained on the City of Spokane claim. It may be mentioned here that the Lillooet & Fraser River syndicate in addition to the above mentioned investment and to others in different parts of the province, have taken a bond on the Apache group in Waterloo, a new camp discovered this year on the Columbia River near the junction with the Kootenay, and on the Aaron group in the same camp. Resuming our description of claims surrounding Rossland and following up the trail above the City of Spokane we pass near the Red Mountain, Mabel and Mugwump claims on the left, and the Monte Christo on the right, on all of which steady work is being done. The Monte Christo in particular is being developed in the most vigorous manner and with very encouraging results. This company have ordered machinery and will probably have it on the ground in a few weeks. The lead on which they are now working is held to be an extension of the Cliff lead, the ground of the Cliff being immediately opposite the Monte Christo, separated from it by the ravine which divides the Red Mountain from the Monte Christo. Mention of the Cliff carries us still further up the trail north of the town to a point on the Eddy L. claim, where Col. Wharton, one of the principal owners of the Cliff, has just completed the erection of his engine-house and plant. Starting from a point further up the slope on the left the owners of the Cliff intend to drive a tunnel through the adjoining claims on to

their own ground, which they will, therefore, strike at a great depth. The undertaking will be only carried out at considerable expense, and it is to be hoped that the owners will be rewarded for their pluck and enterprise. The upper workings of the Cliff form a conspicuous object on the eastern slope of Red Mountain, and adjoining this ground to the west lie, among others, the St. Elmo Consolidated and the St. Elmo, the latter of which claims is confidently expected to develop into a paying mine. No machinery has as yet been employed on the St. Elmo, but assays of a very encouraging nature have been obtained running from \$10 to \$16 in gold and silver. Further down the hill are to be found the Gertrude, Edna and Golden Queen and many other claims, and working down on to the comparatively level ground to the west of Red Mountain and near the Northport road are the California, the San Francisco, the West Le Roi and Josie and others. The well-known Jumbo claim, owned principally by Mr. J. A. Finch and Mr. Galusha, lies north-west of the California and within easy reach of the Red Mountain Railroad, which is now under construction. In a very rapid, and, I fear, unsatisfactory manner, we have now almost completed the circuit of Red Mountain, and find ourselves once more on ground adjoining the Le Roi mine. Leaving the Black Bear, the property of the Le Roi company, and the White Bear below us we can skirt round the hill to the Josie mine, which has the advantage of being worked by a newly installed compressor plant and is managed by Mr. Loring, a well-known mining engineer who also manages the Monte Christo, St. Elmo and Mayflower claims. A considerable quantity of ore was shipped from the Josie last year, and it is to be hoped that with the very much improved facilities which they have now at their command the company will make regular shipments at no distant date. Hedged in between the Josie, the Le Roi and the Centre Star is to be found the Poor-man claim, which forms the fourth of the group managed by the War Eagle company. A good deal of ore from this claim has been shipped within the last few months, and further shipments will, we understand, be made next week. The ground occupied by the Poorman is limited in extent, but its proximity to the above mentioned valuable properties fully compensates any deficiency on that score. A description of Red Mountain would be incomplete without some mention of the recently constructed Columbia & Western Railway. This narrow gauge road, in which Mr. A. Heinze, of the Trail Smelting Co., is principally interested, runs into Rossland from Trail by a circuitous route necessitated by the heavy grades which had to be surmounted. The track runs parallel with and about 100 feet below Columbia Avenue, skirts round the eastern limits of the townsite and, mounting on a series of levels gradually approaches its highest point immediately under the ore bins of the Le Roi mine. The War Eagle mine being on the same level as the Le Roi is easily able to convey its ore to the cars of the railroad on the Le Roi ground, so that shipments from both these mines can be cheaply and expeditiously effected on a level several hundred feet above the town of Rossland.

The peregrination of Red Mountain has occupied so much of the space at our disposal that a similar

voyage of discovery over the workings on Monte Christo and Columbia Mountain will have to be reserved for description on a future occasion, in order to leave room for a few notes on recent occurrences here.

The stock market, generally speaking, has with some exceptions, been somewhat dull for the last few weeks, investors being apparently inclined to hold off a little and watch what will come of the vigorous development work that is going on in all quarters of the camp. The report, however, of a strike on Monte Christo Mountain at the Evening Star was sufficient to cause quite a run on this stock, with the result that it advanced rapidly from about fifteen to twenty cents and has remained steady at that point without any sign of weakening. The surface showing on the Evening Star has for a long time been regarded as remarkably good and good assays have been obtained at several points, but the ground was found to be very much broken, which, of course, considerably enhanced the difficulty of opening up the claim. The management are now, however, to be congratulated on having located a strong and true ledge from which a quantity of high grade ore has already been taken out. A somewhat remarkable point in this discovery was the occurrence of a certain quantity of free gold in the ore, the Trail Creek ores being, as is well-known to your readers, almost invariably of a refractory nature, needing treating by smelting. It is understood that assays up to the value of \$1,600 in gold were obtained from some samples, but this of course would not represent the average value of the lead, nor is it probable that any large quantity of free milling ore will be obtained. The general character of the ore, however, is of high grade and the strike is a most encouraging one to those interested in claims on Monte Christo Mountain. Mining experts have often proved themselves to be false prophets in new mining camps, so it is not surprising to hear that not so very long ago Monte Christo Mountain was examined by a famous American expert, who, after reporting favourably on Red Mountain to the west and Columbia Mountain to the east, pronounced that Monte Christo would be found to be a barren area. This remarkable prophecy is evidently destined to be laid on the shelf in company with similar gloomy forecasts that were made at an earlier date by the experts who sat in judgment on Red Mountain.

Believers and investors in claims in the South Belt have been given good cause for fresh confidence by the remarkably rapid development of the Crown Point Claim. This company are now shipping ore regularly to the Trail smelter at the rate of a car load a day and have advanced their treasury stock from twenty to twenty-five cents. The quantity of ore in sight is very large, enabling the company to make an output of at least thirty-five tons a day if required, which, considering the youth of the mine, is a really surprising result. It may be remembered that prior to the formation of the present company the Crown Point was under bond to Mr. Humphreys, who, after sinking a shaft to some distance, lost the lead and threw up his bond. Under the management of Mr. Volney Williamson the lead was soon recovered, and after two or three months' work he succeeded in placing the property on the basis of a shipping mine.

A Suggestion to English Capitalists.

ENGLISH capital is being awakened to the great possibilities of the mines in British Columbia. There has been a good deal of investigation of our mining districts on the part of the moneyed men in England and elsewhere in Europe, but so far there have been comparatively few transactions of importance to note. Several mines are bonded for large sums and in a few instances some headway has been made in investments. But nothing has occurred to indicate any very decided flow of English capital in our direction. This has arisen partly from the natural caution of foreign investors and also from a lack of knowledge of the mining situation in this province. A number of experts sent out by syndicates and private individuals have visited our mining districts and made their reports thereon, but it is well-known by experience that the best experts sometimes form erroneous opinions about new countries and districts they are sent to examine. For instance, a man well-posted on South African gold fields will find the character of the mines in America quite different in several respects and is apt to judge the latter from the standpoint of the former. Be that as it may, an expert's opinion is at the best only an individual one and often formed from a cursory examination. Americans who have invested in Trail Creek district took a different course. Having made a thorough inspection of certain properties they lost no time in securing the necessary option and went immediately to work upon development. The result was that they soon found themselves the owners of a number of most valuable properties which they are now in a position to offer to English and other capitalists for large sums.

What English capitalists should do is to take a leaf out of the Americans' book and go in for development work. Instead of sending out experts to simply look over the country and report, they would do well to form a strong syndicate and employ a staff of practical, experienced and reliable men on the spot who will be in a position to entertain propositions for the development of promising properties. These men, experienced as they should be in American mines, would, by careful examination, be able to decide whether a property would justify the expense and trouble of developing it. They could not, of course, form a correct opinion in all cases, but they would be more often right than wrong, and in this way the English syndicate in a short time would find themselves the possessors of a number of valuable mines without the necessity of any vast expenditure of money. The mines of British Columbia that are being developed and others that are being operated are turning out so rich that with very few exceptions indeed it is hardly possible for a thoroughly experienced man to take hold of anything which will prove afterwards a failure. This is no boom statement. It is a simple fact, based upon the experience of the past few months.

Why, then, should English capitalists wait till others have developed a mine and then step in and pay a huge sum for it which they might as well save by doing the work themselves? There are men now in this country who are on the alert to obtain control of properties for the express purpose of selling them in London or by forming com-



THE TOWN OF TRAIL, B.C.



BIRD'S EYE VIEW OF ROSSLAND, B.C.



panies to float them in the English market. Some of these enterprises are legitimate enough, while others may be the cause of making English investors pay dearly for the whistle. If the sum asked is not excessive English investors may be able to obtain developed mines here and make a very handsome profit out of them. In many cases this will be done and it is perfectly legitimate that middlemen should in this way become the medium for bringing the mine owner and capitalist together. So long as they are working on *bona fide* lines and not endeavouring to bleed the investor we wish them every success and a good remuneration for their work.

But so far as English capital is concerned, we would like to see more of it turned into the channel of development, not only because we believe it would prove highly profitable to the capitalists concerned, but it would act as a stimulus to the developing of our mines and rewarding of those who, by enduring great toil and hardship, succeed in discovering the hidden treasure which, in too many instances from lack of the necessary capital to undertake development, they are forced to part with for a mere song to find out afterwards that they have been the means of enriching some mere speculator in mining claims. It is development we want in British Columbia more than mere speculation in mining claims. Something is due to the prospector, and if a strong syndicate were formed for development purposes and to afterwards operate the mines thus developed prospectors would have a better chance of obtaining a fair remuneration for their services than they possess at present, and the invested capital would prove a profitable venture.

Columbia & Kootenay Steam Navigation Company.

THIS company is doing good work in the way of assisting the development of our mines. The steamer *Nakusp* is not only a large and exceedingly comfortable boat running three times a week from Arrowhead to Trail, but there is also the new steamer *City of Trail*, employed solely in the carrying of freight, and another fine boat is spoken of for next season. But for these steamers there would be no means of bringing in supplies to the various mining districts along the Columbia. On Kootenay Lake the *Kokanee*, said to be the fastest boat in British Columbia, runs from Nelson to Kaslo, making daily trips. There is also the steamer *Nelson* running to various points on the lake. Turning once more to the Columbia, the steamer *Lytton* makes regular trips each day from Trail to Northport and return, thus giving connection with our neighbours south of the boundary by way of the Spokane Falls & Northern R.R. All these steamers are well appointed in every respect, and those who intend to go down the Columbia have a pleasure trip before them. Capt. Troup, the successful manager of the line, has been obliged to take a trip to Europe for his health, and during his absence the management will devolve upon the shoulders of the president of the company, J. A. Mara, Esq. On Capt. Troup's return we understand that it is the intention of the company to build several boats to be added to their fleet in order to keep pace with the rapidly increasing business.

Prospecting.

THERE were twenty-eight colours in the pan—they were very small, and when they turned over edgewise you couldn't see them.

"How much have you got there?" I eagerly asked; "two dollars and a half?"

"Two dollars and a half?" repeated my "partner," with scornful amazement. "If we had the whole pan full it wouldn't be worth six bits;" and, with a snort of disgust, he chucked the table-spoonful of black sand, and the twenty-eight colours, back into the creek. Then we both smoked, in silence, for some minutes, and the creek roared by, utterly ignoring us and our thoughts. It is a way that all creeks have.

"I would sooner not have found a colour at all than that — Chinese gold," said Ike after a while; "it proves the creek is no good."

How Ike felt I do not know, because he kept his mouth shut very tight for the next two hours. As for me, my hopes were dashed right down into the ground. We had come a long way, and overcome formidable obstacles in getting to this creek, and Ike had confidently predicted a result well up with the best record of the early fifties. He had professed to be an old and experienced prospector, well acquainted with placer mining, and I had been building on our chances much more extensively than I was aware of. These buildings were so solid that now, after the set back, it took several hours to tear them down again. As we had spurred and dragged our passive cayuses along the trail, nearer and nearer to this particular location on Dead Horse Creek (that name will do as well as another) my expectations kept on rising. Every time we jumped over a fallen tree trunk, or floundered through a slough, up went the figure, until, at last, on coming in sight of the creek, I stood pat for an even half million and an eighth of the net returns. Now I had to give away my new schooner yacht, finished with burled maple and yellow plush; my handsome house and grounds in Southern California; and, saddest of all, my beautiful young wife. It was pretty tough. Moreover, I had completely lost confidence in Ike. Hitherto, in my exalted opinion, "he had spoken with authority and not as the scribes"—his every word had been infallible. Even his movements filled me with admiration. When he stood off, with professional calmness, and braced his foot against the stomach of a cayuse to tighten a cinch, a sense of my own ignorance of this manly accomplishment oppressed me painfully. I tried to do it myself one morning when he had gone forward to spy out the course of the trail; but, being some six inches shorter in the legs, and not having judged my distance correctly, I kicked the pack mare squarely amidships, whereupon she wheeled instantly, and delivered both heels with great force in the exact spot where my countenance would have been had I not anticipated her by jumping to one side. And, when we had met Indians or Chinamen on the trail, Ike's hawk-like eye looked clear through them—they gave him the road with respectful alacrity, and freely yielded up information. At me they only grinned with offensive familiarity. "You halo sabe catchee gold," "You no can find," "Your partner, he heap good man; he heap sabe," and other like observations. Now, however, that Ike had failed

so completely, my lost opinion of myself began to flicker up again. But my partner's stock had gone down to stay. His cinch tightening feat was not so wonderful, after all. I would try it again before we got home, on my own pony—he was not so high from the ground. Then all this wonderful talk about bars and benches and old channels amounted to nothing. We had travelled eighty odd miles just to scratch under a few boulders in a mountain stream and then start back for Smithville, as wise as we came and a few dollars poorer. And I had always been of opinion that a prospector, though doubtless unacquainted with the wise precepts of Solon, was “neither elated with success nor depressed by adversity;” yet there was Ike just as much in the blues as I was.

That evening my partner forgot to put salt in the slap-jacks, and I neglected to parboil the bacon. But nothing was said on either side, and we talked, vacantly, on subjects quite foreign to our thoughts.

We had camped by the side of a small, low-lying flat near the river, because water was handy and the feed for our ponies plentiful. But, on retiring that night, all the mosquitoes in the country came to see us. Ike proposed that we would rise up and make a “smudge.” I did not, then, know what a “smudge” was, but seconded the resolution to avoid betraying ignorance. We got up and made a bright, cheerful fire of dry limbs. We then covered it over with grass, green brush and other damp material, whereupon it produced an immense volume of thick and suffocating smoke. But Ike's lucky star had set for the trip. Even his “smudge” was not a success, for, though no doubt correct in principle, yet circumstances arose to make it inoperative, and a gentle breeze from W.S.W. successfully steered the smoke into our eyes and throats without in any way hampering the movements of the mosquitoes. The ponies were also made miserable by these sociable and painstaking insects. Every little while the pack mare's bell would ring out sharply on the still night air, as she tried to land one with her hind foot or catch it flying with her teeth.

I remarked to Ike that the mosquitoes were pretty thick.

“Why, you don't call them thick here now?” he inquired.

“Well, they're plenty thick enough to suit me.” I answered, in sickening anticipation of a more remarkable experience.

“If you want to see mosquitoes, you just take a trip to—some unpronounceable place—in the Okanagan country, in May. Why *there* they drive the horses right into the camp fire,” and then followed a mosquito story, bristling with marvelous incidents about ponies standing in camp fires till their hoofs were burned off, in vain endeavours to get relief from the maddening swarms of mosquitoes inhabiting that part of the country. That was one of Ike's worst failings. You could not mention anything without incurring a long yarn, minutely circumstantial, which made your narration pale and sickly by comparison. Even when I turned, in desperation, to the classics, and trotted out Hector and Achilles, he knew men who had performed greater prodigies of valour fighting Indians in the Black Hills in the early days before the United States government had sent in their

first surveying party. All the many vanities and failings of Ike were magnified in my distempered vision now that we had failed to strike it rich in Dead Horse Creek, and I could not even enjoy the misery of the mosquitoes by thinking their numbers unprecedented, because of his more wonderful experience in the Okanagan country. After a most wretched night we rose up, hollow-eyed and careworn, in the early morning, and, after a hasty breakfast of slap-jacks and bacon, still remembered distinctly by a sensitive stomach, broke camp and started to make back tracks.

And now the obstacles, which were difficult to overcome while labouring under the excitement of the chase after wealth, seemed to have magnified themselves. The mountains looked more wild and savage, the woods and rocks more impassable, and the trail, when we finally reached it, utterly impossible to travel. On the outward journey hair-breadth escapes had passed by me unnoticed, because I was engaged in planting rose bushes and designing flower beds in Southern California, or thinking up telling speeches with which to win the young and untried affections of my timid and blushing bride (to be hunted up after the first dividend, or on the bonding of the property to responsible parties); but now, when skirting a bluff my back hair stood out like feathers every time the gravel rattled from under the ponies and went chasing itself down a few hundred feet to the ponderously moving river below. The trail seemed a mere scratch on the face of the bluffs, which it would puzzle an athletic tom cat to climp, and how the ponies kept from taking a tumble in some places where small washouts had occurred is still a mystery I hate to think about. At one of the worst places, where it seemed that the prod of a walking cane would cave forty tons of over-hanging gravel down into the river, the pack mare, which I was leading, stopped short and braced herself stiff-legged. I had a couple of turns of her halter rope around the horn of my saddle, so when she stopped so suddenly my pony was jerked back on his haunches and dug about a barrowload of the trail away, which went dancing down into the river. Though by this time getting quite wakeful and quick to escape death I forgot to cast off the painter of the mare and my pony dislodged some more barrowloads of gravel before I recovered my senses and let go the rope. I then spurred him further ahead, and overtaking Ike, explained what had happened. He said it was nothing. If I wanted to see a close call I should have been with him on a trip in the Big Bend country, etc., etc. After skirting the bluff we made fast our steeds and crossed over through the woods, climbing down to the trail some distance back of where the disaster should have occurred, where we met the pack mare face to face uneasily picking her steps, and wearing a most unamiable expression of countenance. She had turned in that narrow trail, with a 250 pound pack on her back. Another mystery. Leading her to a place of safety we held an inquest and found a long and exceedingly sharp miner's pick, loose from its lashings, and slowly digging a hole in her spinal column. It was no wonder the poor brute had balked.

These nervous excitements coming one upon another, which made me feel faint and languid, had an opposite effect upon Ike; they braced him up

and made him cheerful, affording openings for his thrice-cursed stories. He found his tongue and rattled on without a break. Then he grew hopeful about mining. He knew of a place which he had been intending to prospect for five or six years—had passed it when the snow was on the ground. He believed that if you got down to bed rock, and drifted in a little distance to the old river channel you could take coarse gold out in hatfuls, or hatful. This rich location was a trifling matter of sixty or seventy miles in an opposite direction, and, so far as he knew, it had never been prospected. (This, with growing faith in my own judgment, I regarded as, in itself, a suspicious circumstance.) We would go back to Smithville and lay off for a few days. Then, after getting "rested up," we would buy another outfit and start for the new place. As we were then descending a rabbit track, at an angle of sixty degrees, I waited until we got to the bottom and then cheerfully endorsed Ike's resolution to go to Smithville and lay off for a few days, but mentally decided that if the hidden wealth of the new diggings remained concealed until I came to unearth it, it would stay there until a cogged railway or other safe means of transit was constructed through that part of the country, because I was fully determined to make my way back to the busy haunts of men, where I could purchase a tooth-brush once in a while and put myself under a course of medical treatment to get the bacon and slap-jacks out of my system.

On the afternoon of the following day, when we reached the wagon road, and it was no longer necessary to keep a sharp lookout for grim death at every corner, several things occurred to me which I might well have thought of earlier in the game, to wit: That the whole country had been thoroughly prospected by first-rate, practical miners in the early days, who, spurred by the incentive of immensely rich "finds," left not a bench, bar, or boulder undisturbed. Therefore, the chances of discovering anything "big" on this old ground were remote—too remote to be banked on by a man of ordinary prudence. That, although there might be lots of good hydraulic ground to be washed by rich companies with nine-inch nozzles, there was nothing left for the humble individual with the pan and rocker. These opinions I expressed to Ike, but he would have none of them. He repeated the old California chestnuts about greenhorns finding immense pockets in ground which old miners had been walking over for years, and others which are doubtless true, but then, they may not occur again for forty years. But Ike's eloquence could not enthuse me any more, nor check my rising respect for sundry "old timers," who took me to one side and told me earnestly before we started that we would not find anything in Dead Horse Creek. Another significant fact which I thought of after we got back, was, that no big "finds" had been made since the early days, although quite a lot of prospecting had been going steadily on for twenty-five or thirty years. On the whole I concluded not to go looking for a placer mine again until I had saved up two or three hundred thousand dollars to build ditches and lay pipes with, but to turn my attention to quartz—this I will be pleased to do, at the expense of "ignorant third parties," always provided that I am permitted to remain in the city and direct operations by mail.

In regard to the healthfulness of prospecting there is much misconception abroad in the public mind. It is true that the scenery is grand and awe-inspiring—the huge mountains towering above one, their scarred battlements seeming to front the ages and defy eternity (this metaphor was *not* stolen out of a railway folder, as might be supposed, but is of my own produce and manufacture, in proof of which I will make better ones if called upon) but the sensation of being awe-inspired is only pleasant when you are out of harm's way—down on a good, solid field, or looking out of a window—not sitting on the palpitating back of a cayuse, with a drop of 600 feet alongside. Then, as to healthfulness, I would ask any full grown person, of sound mind, whether the human stomach was ever intended to stand the rasping of yeast powder "bannocks," cowhide-Congou tea, and the salmon-fed bacon of the upper country, three times a day; or if this perishable body will be made more healthy by being laid to rest on the damp ground and chewed all night by mosquitoes?

If the reader has never had experience prospecting, and would like to obtain the same, he had much better do so by reading about it in the newspapers and magazines of the day, at his own fire side. In this way, at trifling expense, he can obtain more experience than if he went out into the mountains, because, in the magazines the prospector has fights with grizzly bears (see frontispiece) hairbreadth 'scapes, runs short of "grub," tramps for days on an empty stomach (tramps on his own stomach—wonderful feat—he would need wonderful feet), and does lots of things which do not happen in the woods to the city prospector of three weeks' standing. He, also, finds fifty dollar nuggets, by the hatful, which the reader would not do if he went out on a trip himself.

I regret that all these wise reflections did not occur to me sooner, because a man's health is more to him than gold, "yea, than much fine gold," and if he once becomes salivated with local bacon in the mountains there is no remedy known to science that will eradicate it from his system.

Often, while surrounded by the grandest scenes of earth—the Titanic altars of Nature, that blazed to heaven "in the days when the world was young" (at least I suppose they did, though I was not present), now silent and sublime in their loneliness, I was concerned not so much about the bronze and gold lining of sunset clouds as about the lining of my own stomach, rapidly being "knocked out" by self-made bannocks, and the bacon of the local stores.

I cannot close this sketch of my own trifling experience in the mountains without paying a tribute of sincere admiration to the manly fellows who endure unspeakable hardships to discover our mines, and get so little out of them. It is the lot of all pioneers and discoverers to go forward and clear a road for the man with the sack, who comes along later and reaps the benefit. The hardy, restless spirits that will not creep along city fronts and hold up street corners, strike out into the wilderness to encounter hard knocks, exposure, hunger and appalling discomforts. The right of way is disputed by savages, wild beasts, snow and ice. Yet they stay in the business, and find the land, the timber, and the minerals. At the sound of their rifles and axes the wild beasts retire to re-

more regions, and, by means of their trails through the wild country, prudent late comers get in and settle, start sawmills and develop mines. The man with the sack buys for one, two, or three thousand dollars the mine which sells for as many millions. Another late comer starts a saloon, and, with a happy mixture of methylated spirits, belladonna and tobacco-juice, scoops the one, two, or three thousand dollars which the discoverer got for his mine. The discoverer goes "broke" and starts to find another mine. Gould and Curry, the men who found the great Comstock lode of Nevada, out of which Flood, O'Brien, Mackay, Fair, and the other pirates made millions, both went "broke"—they got nothing but a few dollars out of a lode that, in ten years, turned out six hundred millions. The discoverer of Williams' Creek died some years ago in Victoria, flat "broke," and so on. "But why didn't they hold on to their money? Why weren't they more careful? They spent their money sinking new shafts, or went to town and 'blew it in'—they were reckless!" Exactly, my friend, and that is the reason they were discoverers. Caution and greed, admirable though they be in the city, will never go out in the mountains to starve and fight wild beasts, on the *chance* of discovering mines or anything else. They will sit still until the reckless man goes ahead, and gets chewed up, or brings back samples of the rock. They want *certainities*, not *chances*.

"All of which is respectfully submitted."

Nelson.

NELSON, owing to its central position, will always be the chief distributing point for the greater part of West Kootenay. It is now a customs port and the headquarters of the Provincial Government offices in Kootenay. Already two railways run into the town—the Columbia & Kootenay branch of the C.P.R. and the Nelson & Fort Sheppard Railway, and there is every reason to believe that before long construction will be commenced on a line which will tap the Slooan district, thus making Nelson a terminal city of some importance. In addition to this it will be one of the principal stations, if not the terminus proper of the Crow's Nest Pass Railway. A number of steamers ply to and from its wharves, and being at the head of the west arm of Kootenay Lake, it will always be the chief shipping port for all points along the shores of that sheet of water.

Pleasantly situated on the lake shore with grand mountains surrounding it, Nelson is certainly a charming spot to live in, and as a business town the fact that already a number of wholesale houses have located there shows that its superiority as a commercial centre is already acknowledged. Two banks—the Bank of Montreal and the Bank of British Columbia—have branches there, and these will be probably followed by others when the mining districts tributary to the town become more developed. Two of the best newspapers in the Kootenay, the *Miner* and *Tribune*, are published at Nelson, and there are a number of excellent hotels in the town, one of which, the Hotel Phair, is conducted equal to any of the best houses on the Coast.

During the past summer building operations

have been actively carried on in Nelson and there is every indication of rapid growth. The next few years will see a marked change for the better in this rising town. A glance at the article on mines in the vicinity of Nelson to be found elsewhere will give some idea of the extent to which this industry will contribute to the future success of the town. Already it has the greatest mine in British Columbia almost within its limits and likely to have several more opened up at an early date. It has large smelting works which are soon to be enlarged and the possibilities of the immediate vicinity of Nelson as a mining camp are very great. In our next issue we propose to give an extended description of the smelter at Nelson with engravings of the exterior and interior of the works, which will be most interesting to our readers.

Mines Around Nelson.

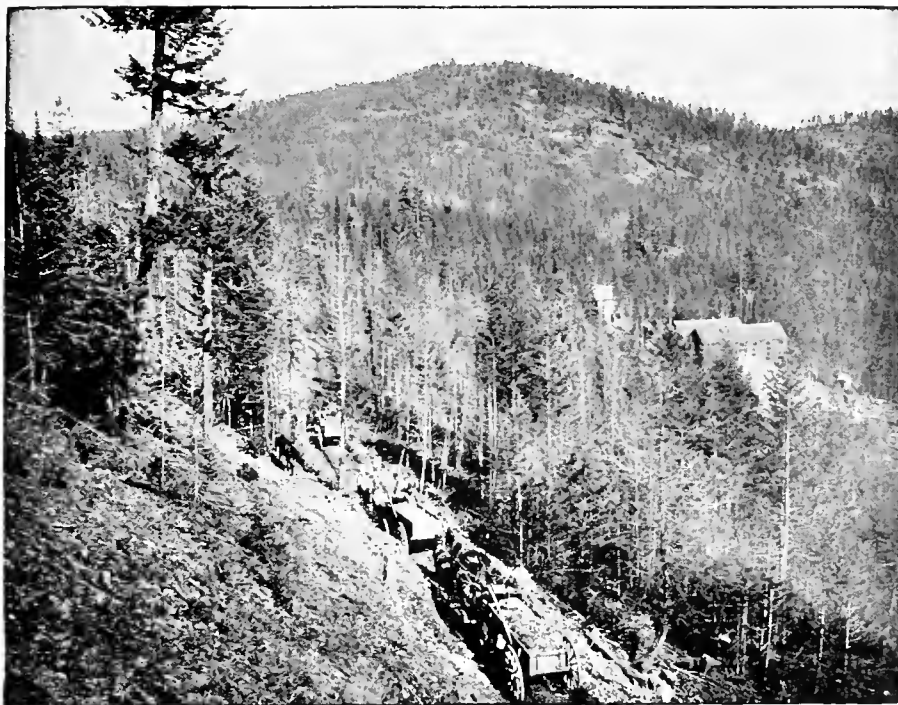
THERE can be little doubt that the feature of the time is the recognition by English capitalists that a mining region exists in British Columbia. A few British syndicates have made some comparatively trifling investments, but the big people are awaiting the reports of their engineers who have been here examining the country.

A year ago the appearance of an English mining engineer was an event in Kootenay. In spite of the fact that your regular miner affects a lofty contempt for what he calls an "expert," yet these missionary engineers brought with them a sniff of capital that was welcome to the nostrils of a waiting country. They were therefore treated (in more ways than one) with considerable respect and attention and some little show was made of shepherding them. Now the place swarms with engineers, from smart young men in long yellow boots who loudly proclaim their attainments and the wealth that hangs on their words, to shabby looking old gentlemen whose names are household words on African plains, in the burning deserts of Australia, among the peaks of Mexico, the fern trees of New Zealand or the high uplands of India. Some of these men talk; others don't. But the silent ones will speak or write when they get back to London, and there is more hanging on their few words than on the reams of gush poured out by the others.

Among the engineers of note who have visited us this season are Mr. C. Bates Dorsey and Mr. A. L. Pearse.

The Silver King mine, with its smelter, continues to be the most successful enterprise in the country. The present policy of activity was decided on about a year ago after a careful exploitation of the mine. The smelter was built in the fall and began to work early in the year. With a few interruptions it has been running steadily ever since. Up to the 25th of July it had put through 17,000 tons of ore, producing 1,400 tons of matte. The latter contains about fifty per cent. copper and from 200 to 300 ounces of silver to the ton, together with a little gold.

The company has now decided on considerable extensions to its smelting plant, which will necessitate increased tramway accommodation. Ore is at present transported from the mine to the smelter at Nelson, a distance of four and a half miles, by means of a Hallidie wire tramway. Surveys are



HAULING ORE FROM THE MINES—NEAR ROSSLAND.



ORE DUMP AT LE ROI MINE—ROSSLAND.

now being made for the construction of a wire tramway on a different system; the main rope will be stationery, and the buckets will travel on it by means of wheels.

The company has recently acquired the Iroquois, a claim adjoining the Silver King to the westward. There is a strong, well-defined lead of galena on this property and its extent is now being prospected by two diamond drills.

The shares of the company rose rapidly as soon as the operation known as "making a market" was accomplished in London. Their par value is £1 each. They are now valued at £2 to £2 5s., having been at one time £3 5s.

The mill at the Poorman is temporarily stopped while the work of reaching the ledge at a lower level is proceeding. For this purpose a shaft has been sunk 100 feet, and a drift to cut the vein is now being commenced. This mine is entirely in private hands, being the property of the Davenport family, and its returns naturally enough are not published to the world at large. It is popularly supposed to be a good yielder. The machinery consists of a ten-stamp battery and four Frue Vanners, all driven by water power.

The Fern and Eureka claims on Hall Creek are on the opposite side of the mountain to the Poorman, but they contain similar free milling quartz. They have recently been bonded from their owners, Mr. Frank Fletcher and Captain Duncan, by Mr. T. C. Innes, of Vancouver, on behalf of eastern capitalists. The first payment of \$7,500 has been made, and the bonders are about to put in a ten-stamp mill.

On the same creek the Canadian Belle, the property of Mr. G. B. Heathcote, is looking well. Recent operations have disclosed a vein containing white iron and grey copper.

Coming round the shoulder of the hill to the northward, where the Silver King wagon road crosses and re-crosses, several minor claims have been bonded for comparatively small sums and are all being worked. The chief of these is the Princess, upon which the bonders are expending a good deal of time and energy.

In the eye of Give Out Creek Mr. George Grant Francis, representing some mysterious individuals somewhere, has taken a bond over the Starlight, White Witch, Black Witch and Golden Star, and a force of men has been put to work. The bond is for \$40,000 and extends over six months. These claims were bonded last year by Mr. Humphreys, of Alamo and Idaho fame, but after driving a tunnel over 100 feet the bond was dropped, in spite of the fact that the ledge was reached. The cause was understood to be a disagreement among the partners.

The consolidation of the Noble Five and Deadman properties has at last been brought about. These groups of claims adjoin each other on the hill just above the terminus of the Kaslo & Slocan Railway at Cody.

The Noble Five has been well-known for some time as a rich producer, and also for a notable law suit in which two of its owners, the popular Hennessey Brothers, were mixed up. It was sought to be proved that they were "grub staked" when they discovered the famous mine. One of the brothers managed to shake himself free of the in-

cubus, but the other had to give up half his share to the plaintiffs. The new consolidation has taken the form of a company with a capital of \$1,200,000, of which 300,000 shares (of one dollar each) are being offered to the public in the form of "non-assessible treasury stock" at twenty-five cents. The directors of the company are A. R. Porter, president; J. J. McGuigan, vice-president; J. F. Cutler, secretary; R. M. Sherman, treasurer, while the board is completed by Mr. John Porter. An active policy will be inaugurated at once. A concentrator will be built and a wire tramway of about a mile and an eighth in length erected to transport the ore. The claims which pass into the possession of the new company are the Maude E, World's Fair, Bonanza King, Knoxville, Noble Five, Deadman and Wild Goose.

The amount of ore actually shipped from the mines of West Kootenay from 1st of January to the end of July, 1896, was 59,249 tons. Of this 43,895 tons were treated in Kootenay smelters, and 15,354 exported to the United States. The returns made to the Customs House at Nelson for the same period showed that the above contained 30,673 ounces of gold, valued at \$552,135; 1,459,629 ounces of silver, valued at \$969,215; 6,069 tons of lead, valued at \$220,849, and 1,163 tons of copper, valued at \$129,250, giving a total value of \$1,871,449. To this must be added about \$375,000 which went out by Revelstoke, which is still part of the port of New Westminster.

PICK.

Kaslo.

IS the only incorporated town of the Kootenay and is so situated that it cannot fail to be an important smelting point for the ores of the Slocan and Lardo-Duncan districts as well as a supply mart for the great mining regions tributary to it. In 1890 the site was located as a homestead by Geo. T. Kane, who afterwards sold it to a townsite company composed of the same men who built the Kaslo and Slocan Railway. In 1893 came incorporation, followed the next year by a disastrous fire which almost wiped the place out of existence. The Kasloites were, however, equal to the occasion, and to-day not a trace of the conflagration of '94 is to be seen, although a few of the citizens have not yet recovered from the losses they then experienced.

The population of Kaslo is estimated to be 1,200 at the present time and the number of residents is increasing month by month. Like all mining towns there is a large floating population, but many of those who are interested in the neighbouring mines are making their homes in Kaslo. The delightful situation of the city and its splendid climate makes it a charming place to live in. Added to this are the superior means of communication it possesses with the outside world. Not only is there the Kaslo & Slocan Railway giving egress by way of the Columbia and the C.P.R. but there are no less than eight steamers now plying to and from its landing. The splendid fast steamer *Kokanee* of the Columbia & Kootenay S. N. Co., a really handsomely equipped boat, makes regular trips to Nelson; so does the *Alberta*, another fine steamer owned by the International Trading Company, of

which Mr. Geo. Alexander is manager. The latter company has nearly completed another fine boat to be called the *City of Kaslo*, which, it is claimed, will be as fast as the *Kokanee*, and when she is placed on the Nelson route, for which she is intended, there will be three steamers plying regularly between Kaslo and Nelson. The steamer *Ainsworth* also runs to Nelson and intermediate points, the *Haly's* to Bonner's Ferry, *Angerona* and *Red Star* to Pilot Bay, and in addition the steamers *Kaslo* and *Idaho* run to other points.

The following industries are located in Kaslo: A saw mill capable of cutting 35,000 feet of lumber per day with a planing mill adjoining, both of which are owned by Mr. G. O. Buchanan; a sampling mill of 100 tons, bottling works, cigar factory and others of minor importance. It is a most orderly town although it has variety and beer halls in full blast. But the arm of the law keeps unruly characters well in hand. There is also a good theatre in which the performances and concerts given are often of a high character.

The city is presided over by Mayor Green and a council of five members, namely, Messrs. J. D. More, Geo. Whitehead, Alex. Cameron, Colon Murchison and A. W. Goodenough, the latter being part owner of the well-known Goodenough mine. Mr. E. E. Chipman is city clerk, and the police force consists of one officer who apparently is quite able to maintain peace and order. The streets, of which there are three principal avenues, are broad, well graded and lined by over a mile of plank sidewalk.

A by-law is about to be submitted to the people to raise \$30,000 for water works and electric lighting, and as there is little doubt about its passage, it is expected that work in these improvements will be commenced within a few weeks. Already Mr. Bostock, M.P., has agreed to take the bonds for this purpose, so that there is no question about the money being forthcoming.

The drainage of Kaslo is excellent, and although a great deal has been spent in work about the city it has not at the present a dollar of debt hanging over it. This speaks well for the management of the civic finances.

There are four church buildings, occupied respectively by the Presbyterians, Methodists, Episcopalians and Catholics. Four hotels accommodate the travelling public, and a movement, we understand, is on foot to build another large house to keep pace with the times.

Such is Kaslo at the present moment. What it will be within the next five years it is not difficult to conjecture. A glance over the article descriptive of the mines in the neighbourhood and tributary to be found in this issue will give some idea of the great possibilities of the town in the immediate future. Why the ores of this vast mineral district should continue to be shipped to smelters at a distance is difficult to conceive when Kaslo is so particularly well situated in many respects for the erection of smelters. That British Columbians will soon realize the importance of home smelters to keep the money in the country is certain, and when that time arrives Kaslo will become a hive of industry in several branches the result of centering smelters within her limits.

Kaslo is "all right;" her future prosperity is assured, and in concluding this article we must not

omit mention of one of the chief factors in the rapid strides which the town is making, namely, the presence of one of the most progressive newspapers in West Kootenay, the *Kootenain*, published weekly and most creditable and "up-to-date" in every respect.

The Slocan.

THE mineral status of Kootenay is now established beyond any possible chance of contravention; indeed, the oft-met phrase, "the country's coming greatness is assured" and kindred expressions are becoming irksome since greatness is already here and can only be increased in volume. Men with fortunes to invest and men in search of fortunes no longer come to this part of Kootenay—the Slocan—to "see what it is like," to "simply investigate" or to "prove" the whole or any part of the country's attributed wealth. They come here now to "get in," as the prospector would say, or to acquire something in the way of a mineral claim before the chances are exhausted or an advance in the prices of lead and silver sends figures on mines and good prospects a-glimmering. The price of the product may run values high, but this will only give additional incentive to the hardy prospector, and it will be many a long year before that very necessary and much-to-be-admired adjunct to the country's fame will put down his pick and say there is no more to be found in Kootenay. In fact if there be not, as many claim to believe there is, enough wealth in these hills to keep the world's eyes fixed as at present, on Kootenay for at least a hundred years, the present fostering (?) policy of government, if continued, would have the same effect, since thereunder at least half that number of years will be required to open up and develop what we already have in sight.

What this part of Kootenay needs more than any other thing, more than prospectors, more than additional railroads (though railroads will come in handy later on), more than English capital, is government interest—government interest which will build trails and wagon roads and thus make it possible for the prospector and the small home investor to open up their properties. We want English or outside capital, true, but we know from experience that foreign capital takes few chances, and where the enlistment of interest on the part of capital depends upon development, development which is impossible without the convenience of trails and roads, it is plain that trails and roads should be the first thought.

But among the thirty-five or more actual producers or shipping mines—made so almost entirely with home produced capital, this will be a year of great activity. The Slocan is putting on overalls and blouse for a busy season. The above number is being augmented from week to week, and it is not too much to say that your next Christmas number can credit the Slocan with having fifty shippers.

The consolidation of the Noble Five and Dead man groups, embracing seven claims, has been consummated and the stock is to be placed on the market at once—300,000 of the 1,200,000 shares at twenty-five cents. This property has a great future. Two claims of the seven have produced

\$150,000, and there is enough ore in sight to employ constantly the eight-ton mill which is to be erected at once for one year.

The Whitewater, owned by J. C. Eaton, John L. Retallack and W. E. Mann, only a few months ago ceased to be a prospect and joined the list of big mines. Its history, the story of the struggle against all sorts of adverse circumstances, but fought and won by W. Eaton, the locator and principal owner, reads like a romance. It will be given the *Record* later, together with a description of the property. During last winter it produced a large amount of ore and will more than treble its shipping record this. A wagon road to the mine, built this summer at a cost of \$3,000, together with extensive development work done this summer, places the property in an excellent position. In No. 2 tunnel they have five feet of 100-ounce ore. In No. 3 tunnel the stopes show seven feet of 90 ounce ore, and in No. 4 tunnel fourteen inches of 95-ounce ore.

The Washington is shipping weekly five car loads of high grade concentrates and has an immense amount of ore in sight.

The Wonderful, recently opened up, is shipping from three to five cars weekly, mostly ore taken out in development.

The Slocan Star continues heavy shipments on its 12,000 ton contract with the Omaha & Grant smelter.

Heavy development work is putting the Wellington in shape for record breaking this fall and winter.

The Slocan Boy, Reco, and Goodenough are all taking out ore and will make heavy shipments, beginning in September.

Five cars of Payne ore taken out last winter and stored at Bailey's siding are being shipped.

During the last thirty days seven men have produced about 100 tons of 125-ounce ore from the Noble Five. It goes to Pueblo and will give a net return of about \$10,000.

At the Black Fox, nine miles from Kaslo, on the South Fork, development work is bringing into sight considerable shipping ore, and is fast making the prospect into a mine.

The Lucky Jim air compressor plant is being placed in position. This property has large bodies of low grade ore and a mill will probably be the next improvement.

J. E. Mitchell recently bonded the Charleston, above the Wellington, and has commenced development work.

W. E. Mann & Co. last week took under bond from Jack Robertson and A. Hananer, of Salt Lake, the Bell, a fine-looking property in Jackson Basin. The company begins operations at once with eight men.

DAVID W. KING.

Quesnelle Forks.

THE gratifying news has just reached us that a company entitled "Golden River, Quesnelle, Limited" has been successfully formed in London with a capital of £350,000 (\$1,750,000), for the purpose of constructing a dam across the South Fork of Quesnelle River to pen back the waters of Quesnelle Lake, so as to enable mining for alluvial gold to be carried on in the bed of the river. About

\$400,000 is already available for the work and tenders have been called for certain preliminary work which is to be proceeded with forthwith. This news is the more satisfactory because the magnitude of the undertaking is such that a large number of men will be employed through the winter. The design of this great scheme is to bring to light some of the well-known fabulous wealth of our rivers.

Of both the North and South Forks of Quesnelle River it may be said that ages of gradual erosion and slides from the hill sides or the accumulating debris of floods have combined to make these channels the veritable rifles and storehouses of placer gold. They are situated in the very heart of the well-known and mineral recognized placer gold belt of Cariboo and are justly regarded as enormous sluice boxes in which has been arrested the gold in the gravel eroded by the flow of the waters through countless ages. It was on these rivers that the Fader Gold Dredging Bucket Company reported such splendid results from their temporary exploitations and trials of their plant last year, and Mr. Fader makes special mention of prospects taken on the North Fork near Kangaroo Creek as yielding from thirty-nine cents to \$17.50 per yard.

The large nugget of gold which was sold in Victoria the other day for \$130 was from this river at its confluence with Keithley Creek. With such hopeful indications both above and below the same stream the parties operating at Cape Horn in the erection of a dam and other works for diverting the river so as to lay bare about 3,000 feet of its old bed, should feel more than jubilant and are heartily to be congratulated, and we are disposed to echo the sentiment— "Cariboo for ever!"

A Country of Magnificent Curves.

KOOTENAY is a country of magnificent curves. It is all curves wherever you go, whether by trail, steamer or railway. To travel one mile in a straight line you will probably have to go twenty. But what you lose in time you more than make up in pleasure, for at each turn of the road or bend of the river a fresh picture of scenic beauty or grandeur is presented to your view. You travel a good way, it is true, to go a short distance, and sometimes to the busy man this is an inconvenience, but to a person who can afford the time a trip through the Kootenay is one series of delightful surprises, one continued feast of lovely and magnificent scenery.

The trip down the Columbia by steamer, the run over the Columbia & Western from Trail to Rossland, from Robson to Nelson by rail, skirting the Kootenay River, then on down the lake to Kaslo, and from the latter place in through the mountains of the Slocan all is one continued panorama of scenic beauty. Along the river your eyes will rest upon a beautiful stretch of rapids fascinating and delightful to look upon; the next you pass a roaring torrent or waterfall entrancing in its grandeur, sending forth its sprays beautified at times with all the colours of the rainbow. On the lake you round point after point along the shore, each turn presenting a fresh picture—sometimes a stretch of pebbly shore with the foliage of the trees overhanging in places to

the water's edge; sometimes a bold and rocky bluff precipitous and towering to the sky hundreds of feet; then a rude wharf with a cluster of settlers' cabins nestling in the adjoining woods. At every turn there is something new—something to interest—something to delight.

From Kaslo to Sandon for some distance the line of the Kaslo & Slocan Railway skirts along the edge of the river, which is simply a succession of small rapids and picturesque waterfalls the whole distance. Here and there you pass a Government trail crossing the railway and cutting into the dense bush. At one place you come to where mineral springs are bubbling from the mountain side and the conductor steps the train to allow you to drink of the waters. From here the line gradually ascends, creeping along the mountain side until as you near Three Forks you are at an altitude of over 1,500 feet above the valley. At one point as you look out of the car window it is almost a straight fall of 1,800 feet from the very edge of the track to the bottom of the precipice, and you catch your breath as you think what sliding off the rails would mean at that particular spot. But the road, although a narrow-gauge, is substantially built and well looked after. The road-bed is carefully attended to and the trains are run with every precaution to ensure safety. Still the feeling is, to say the least of it, somewhat exhilarating when you find yourself in a railway train twirling along a narrow ledge of rock cut out of the mountain side nearly 2,000 feet in the air where a slip from the rails would mean almost instant annihilation to all on board. For all that a trip over the Kaslo & Slocan Railway should not be neglected by the traveller, especially as along the route and at the end of the journey he will have an opportunity to see the great silver mines of the Slocan, which, from present appearances, are destined to be probably the largest in the world.

Mineral Exhibits.

DURING our recent and somewhat hurried visit to West Kootenay we succeeded in collecting a large number of excellent samples of ore from various mines, which we intend as the nucleus of a very complete "cabinet of specimens" for the inspection of parties interested who may care to visit our office for the purpose. In connection with this we would suggest to the Provincial Government the advisability of forming several collections of specimens to send to prominent places in the East and in Great Britain. Nothing would attract the attention of outsiders to the wealth of the minerals we possess in this province more than such a step on the part of the Department of Mines.

The Mining Brokers of the Mining Camps.

THE mining broker is the leaven in the mining camp by which things are kept stirring. Through him the prospector is brought into touch with the men who have the money to invest in mining claims. Ever on the alert to turn a penny in commission or even to take a hand in mining ventures for himself or his clients, the mining camp would miss his presence just as a new town would

miss a real estate agent. The mining broker is indeed an indispensable factor in a mining camp, and if honest and honourable in his dealings he is capable of assisting greatly in its development. But the unscrupulous broker who cares not for his reputation so long as he can turn a dollar for himself, who is perfectly callous who loses so long as he gains, who will misrepresent and over-estimate values knowingly in order to carry through a deal for his own personal benefit is a man who does incalculable mischief to the camp in general. It is through such men that mining investments have come to be looked upon with suspicion by many investors. It would be well for a camp if such men received twenty-four hours' notice to quit. There are always a number of respectable and honourable men in a mining camp or town doing business as brokers, whose reputation as reliable men is dear to them. It is easy for the investor to pick these men out and he should never entrust his interests to any brokerage firm without first making careful enquiry. At this time, when there is likely to be a good deal of excitement in the mining circles of this province, a word to the wise should be sufficient.

The Sovereign Mine.

THE Sovereign mine, which is located about a mile and a half from the town of Trail, has been for the past three months under bond to a syndicate composed of Butte, Rossland and Victoria men, and having been developed very thoroughly and energetically it now bids fair to become a rival of the greatest mines in the Trail Creek district.

They have two shafts down about thirty-five feet, both in pay ore. A general sample made recently runs \$16.40 in gold and three per cent. copper. Day and night shifts are at work upon this property, and it is being pushed rapidly, it being the intention to have the men on the mine working all winter.

Charles S. Warren, ex-Mayor Dugan, Thomas R. Hinds, W. W. Wishon, of Butte; Ed. Welsh, of Rossland; Michael Dunneen, of Spokane, and D. R. Harris, of Victoria, are the owners of the option.

This is now considered, from present developments, to be one of the most promising prospects between the Columbia River and the top of Spokane Mountain, and the parties already mentioned deserve success for the manner in which they have gone about systematic mining.

Sooke Iron Mine.

THAT British Columbia possesses amongst her other valuable minerals large bodies of excellent iron ore is well known, and as an instance of this we cannot do better than publish the following reports on the Sooke iron mine, situated about twenty miles from the city of Victoria, on Vancouver Island. The first report is from Mr. William Teague, and is as follows:

To the Proprietors of the Sooke Iron Mine, Victoria, B.C.

Gentlemen: I am pleased to inform you that I have inspected your iron mine. I find the mineral in large quantities and of superior quality, dis-

seminated through a hornblend matrix. The body of the ore can be distinctly traced by the outcrop on the surface for a long distance—half a mile or more, on a north-east course, varying from fifteen to twenty feet wide in the unstratified hornblendic rocks, occasionally showing extraordinary masses of almost pure specular oxide ore.

From observations seen by the cross-cut open below, the ore assumes more, in character and shape, of a mountain than a lode, of inexhaustible quantities, carrying from fifty to sixty-five per cent. of iron free from any rebellious matter which would prove detrimental to its smelting, and I think the matrix in which it lies is charged with sufficient material for the smelting fluxes.

This valuable property, I observed, is conveniently situated within twenty miles of the city of Victoria, reached by an accessible water stretch, and within easy approach of landing at a good harbour, where a ship of 700 tons burden can, without danger or difficulty, safely ride and be loaded with ore in six or seven fathoms of water at all times, by extending a wharf, say sixty feet from the shore, at very little cost, as the material necessary is growing in close proximity. Every facility is favourably provided by nature for cheap means of conveying the ore or the material necessary for manufacturing purposes. The ore bed is only 300 yards distant from the water shore.

I am of the opinion that this mine can be worked upon the same principle as the iron mines of Spain, by excavations upon the surface upon the ore. Novices in the art of mining are prone to undertake the development of their veins by shallow tunnelling. Sinking on the vein is always the best way of prospecting a mine, and where there are no surface indications, the safest way is to let prospecting in that line alone. As a rule, with depth in mining has come increased richness. Reasoning upon this hypothesis, I think you have a mine that will turn out a very valuable property, as the ore can be extracted at a very small cost per ton, and leave, I think, a very handsome profit for the fortunate owners.

I remain, gentlemen, very truly yours,

WILLIAM TEAGUE.

Yale, B.C.

Next is a report from J. H. Collins, F.G.S., of London, England, as follows:

During my recent visit to Victoria I had the opportunity of inspecting a very promising iron location owned by Mr. F. G. Richards and others.

It is situated three miles east of Sooke Harbour on the south end of Vancouver Island, and about twenty miles from Victoria.

In company with several of the owners I started from Spratt's Ark in a small steamer, and running against the incoming tide, reached the spot in three and a half hours.

Landing in a sheltered cove, which could be readily converted into a convenient shipping port, a walk of three or four minutes took us to the mine. Little work has been done up to the present time; but that little, supplemented by the careful inspection of the rocks at the surface and of the exposures of the sea shore, is sufficient to determine the existence of large quantities of magnetic iron ore.

The situation is all that could be desired: a hill, mainly composed of crystalized hornblende, up-

wards of 200 feet high and a quarter of a mile wide, is traversed throughout its length by numerous contemporaneous veins and segregations of very fine magnetite, varying from an inch to several feet in thickness.

Analysis of the ore made by Dr. Wallace, of Glasgow, show it to be of exceptionally fine quality, averaging over sixty per cent. of metallic iron practically free from all injurious components.

It is likely enough that three veins may coalesce in depth, but in any case there is plenty of ore in sight.

These veins can be attacked from a deep ravine which runs along the base of the hill, nearly parallel to the main course of the principal veins.

An expenditure of \$5,000 (about £1,000) would suffice to complete the shipping wharf, build a road and make the necessary preliminary openings into the hill; after which, the ore being so abundant, and the facilities for working it so great I do not doubt it could be obtained in practically unlimited quantities and put free on board at a total cost of about \$1 (4s. 2d.) per ton.

This ore would make the finest kind of iron. If smelted with charcoal it would be equal to the best brands of Swedish and Russian iron.

There is a large and growing demand for such iron on the Pacific Coast, and with excellent fuel so near, and limestone for flux obtainable at a cheap rate, it is to be hoped that this promising property will not remain long idle.

J. H. COLLINS, F.G.S.

Next we give the following analysis of the ore:
City Analyst's Laboratory,
138 Bath Street, Glasgow.

MAGNETIC IRON ORE.

	A	B	C
Peroxide of Iron.....	54.89	65.36	65.00
Protoxide of Iron.....	23.61	18.36	31.50
Oxide of Manganese.....	.23	.62	trace
Lime.....	.47	.33	.42
Magnesia.....	.52	1.15	.20
Phosphoric Acid.....	.015	.03	trace
Sulphur.....	.02	trace	.08
Iron combined with Sulphur.....	.02	trace	.07
Alumina.....	7.90	5.19	.91
Titanic Acid.....	.60	none	.70
Silica.....	11.70	8.50	1.40
Water.....	.10	.10	...
	100.075	99.64	100.31
Iron, pure, per cent.....	56.80	60.03	70.07
Pig Iron, per cent.....	61.50	65.00	75.90
	CWT.	CWT.	CWT.
Pig Iron, per ton.....	12.15	13.00	15.020
Ore required to make ton of Pig Iron	32.5	30.8	26.3

C is a magnificent magnetic iron ore of extraordinary purity and richness, and A and B are of excellent quality, all being capable of making the finest description of pig iron suitable for making steel by the Bessemer or Siemens-Martin processes.

Dr. Wallace, Wm. Tallock, Dr. Clark, City Analysts, Glasgow.

WM. WALLACE, P.L.D.F.R.S.E.

ASSAYS.

No. 1—By Wm. Ireland, of San Francisco, Magnetic Iron	73.40
" 2—By Thos. Price.....	57.80
" 3—By do.....	57.30
" 4—By J. J. Beringe, of Cornwall, Eng., Magnetic Iron.....	48.90
" 5—By do.....	68.50

No. 6—By G. Kutsel & Co., of San Francisco, Magnetic Iron	64.04
" 7—By G. T. Hoffman, Dom. Gov't Mineralogist, do	59.06
" 8—By do do do	52.03
" 9—By do do do	58.49
" 10—By do do do	55.83
" 11—By do do do	63.64
" 12—By do do do	63.57
" 13—By do do do	48.94

Ainsworth Camp.

OUR town is slowly but surely forging to the front, as is also the camp. The fire which wiped the town out a short time ago only made us sick for a few hours. The work of re-building was at once commenced, and now Charles Oleson has his hotel completed and running. It is one of the neatest furnished and most complete houses in Kootenay district. A. A. McKinnon also has his house completed and running. The Ainsworth Trading Company have their general store nearly completed. H. Geigerch is building a fire-proof cellar, on which he will erect a brick and stone building 25x80 feet, running back to his 25x50 foot warehouse, which is already completed.

Dan Clark and Jimmy Van Hook sold their lease and bond on the Tariff the past week to the Omaha & Grant Smelter Company. The latter are developing with day and night crews. A tunnel some 250 feet long will be run to tap the vein on which they have been working and shipping all spring and summer.

Mr. Stephens and his son, of Philadelphia, are starting work on the Highlander, a valuable shipping mine which they are the owners of.

A contract has been let to run a 200-foot tunnel on the Albion, which lays next north of the Highlander.

Cal. Spanglin, of Minneapolis, is expected in a few days to start work on the O.K. north of the Tariff. It is the intention of the colonel to push the development as fast as possible.

The Britannia Mining Company have at last closed the deal for the No. 1 mine and have paid cash for the same. The concentrator is now being run night and day and the mine is turning out lots of very high grade ore.

The Sky Line is shipping about twenty tons of ore a day which nets from \$30 to \$40 per ton.

Mr. Carter, owner of the Highland, has a large force of men at work on that mine developing and taking out ore. He has just completed an addition to his cabins, and also a very commodious ore shed. A. S. Farewell is busy surveying a tram road from the mine to the mouth of Cedar Creek, where a concentrator will soon be erected.

Mr. Farewell has been surveying claims for Crown grants for several weeks past, among them being the Ellen, Buggaboo, Attended, Twin, Ferguson, Nicolett, Srelling and Hector.

Strobeck and McArthur have commenced the development of the Twin. They are running a tunnel 125 feet west on a feeder vein to tap the main north and south veins. This will give them a depth of about 150 feet on the main vein. This is one of the most promising claims in camp, as the surface showings are something wonderful.

The Della mine will start up about August 1st and will commence to ship at once, as there is plenty of good grade ore now in sight.

Stallburg & Co., at the Mile Point, are still taking out very high grade ore and will soon make a shipment.

Mr. Warner has another shipment nearly ready from the Neosho mine.

The C.P.M. & M. Co. at Woodbury were delayed in finishing their flume on account of high water, but it is now completed, and the tram track completed and laid about 2,500 feet, leaving about 600 feet to be laid yet to connect it with the Bonanza vein, where they have over sixteen feet of ore averaging \$28 per ton. The company have closed a contract for a fifty-ton concentrator to be finished by October 1st. Work will be commenced on it at once and pushed to completion.

Three powder drills will be put in operation on the 1st of August and the ore run down to the bins at the mill so as to have about 10,000 tons ahead when the mill starts up.

Many properties are now changing hands, and the outlook is very bright for a busy future.

The Hotels of Kootenay.

ROSSLAND and Trail can boast of having good hotels. The Hotel Allan in the former town we have already mentioned, and in Trail the Meakin House is not only handsomely furnished throughout with brussels carpets, rugs and upholstered furniture of the very best description, but the *cuisine* is equal to that of any first-class hotel in British Columbia. One of the chief attractions of this house is that everything about it is kept scrupulously clean, and altogether it will be a pleasant surprise to those visiting Trail Creek. At Nelson the Hotel Phair is a most popular house, and deservedly so. There is not an hotel in Vancouver or Victoria to surpass it for comfort or for the excellence of its table, the only drawback being that the building is too small to accommodate the large number of guests who apply daily for rooms. There are many other comfortable hotels, but we mention these three as samples of our experience during a recent trip. We hope to mention others from time to time during our proposed frequent visits to the mining districts for the information of readers who may visit British Columbia.

From East Kootenay.

THE Sullivan group of mines in the vicinity of the North Star has been sold to a Spokane company. Consideration about \$30,000.

The Midnight mineral claim adjoining the North Star to the north has been bonded to B. C. Kingsbury for a good round sum. Some men have been put to work to run in a tunnel on the property.

A contract has been let to run 100 feet of tunnel on the Moyie mineral claim belonging to F. F. Houghton and others.

A shaft has been sunk on the St. Eugene, striking a valuable body of ore.

The North Star has a force of fifteen men at work getting out ore.

The steamer *Rustler*, the property of B. W. Jones & Co., was wrecked while going through the cañon near Jennings with a load of ore. In all probability the machinery will be saved, but her loss will be a great drawback to the country this season, reducing the output of ore to the smelters.

Excursion from Eastern Canada.

A PARTY of fifteen left Toronto on August 10th on what was called the "Toronto Board of Trade excursion to the gold mines of British Columbia." So far as the Toronto Board of Trade is concerned, the excursion is a failure. It was hoped to have had at least one hundred of the members visit the Coast, but not one of those who left is a member of the Board of Trade.

The names of the party are: M. Irving, H. Ryrie, W. J. Elliott, W. J. Green, Harry A. King, E. Murphy, W. H. Cooper and George Taylor, of Toronto; W. G. Elliott and W. E. Plin, Brantford; J. E. Kelleher, Guelph; W. Fitzgerald, London; A. S. Goodeve, Chesley; J. H. Sills, Meyersburg, and S. Graham, Peterboro.

The party go straight through over the Canadian Pacific.

HAPPENINGS AT THE MINES.

A. M. NELSON, the capitalist, recently bought a half interest in the Ida mine, situated close to the Sovereign, the consideration being \$5,000.

Mrs. Warren, a lady prospector, has, with four others, staked four claims on the Duncan summit of the South Fork.

Development work is being prosecuted vigorously at Deer Park on Arrow Lake. This promises to be a good camp.

There is some talk of establishing a smelter at Northport in connection with the Rossland mines.

The Prospector group of claims near Murphy Creek are showing up well.

Mr. Sanson, at the request of C. McL. Brown, C.P.R. passenger agent at Vancouver, is shipping samples of Boundary Creek ore to Montreal, to be added to the railway company's already good collection of British Columbia mineral specimens.

Moneyed men and experts are flocking into the Boundary Creek district, which bids fair to become one of the greatest mining regions in Kootenay as soon as transportation facilities are provided.

The engineers of the Columbia & Western Railway are busy surveying the line through Boundary Creek, and so far are experiencing no difficulty in locating the line.

A big clean-up is expected from the Cariboo mine this month.

One month's shipments of ore and concentrates from the Slocan Star amounted to eleven hundred and forty tons.

A new vein has been discovered in No. 4 tunnel of the Slocan Star.

Important additions to the Hall smelter at Nelson are being made.

The Noble Five Consolidated and Milling Company is the result of negotiations which have been under way for some time, for the consolidation of the Noble Five group of claims and the Deadman group, two properties which have always formed two of the strongest sections in the back-bone of the Slocan's fame.

It is reported that the vein of ore that has made Red Mountain famous has been traced northward to Arrow Lake. It is a most wonderful deposit of the precious metals. The vein cuts across Stony Creek, Murphy Creek and Sullivan Creek to the new Bunt Pass district, which lies opposite

Robson and three miles from Lower Arrow Lake, and eighteen miles from Sheep Creek.

On the Copper mine, Copper Camp, Boundary Creek district, work is still progressing, and at a depth of fifty feet they are now crosscutting the ore body.

Mr. Graham is at work on his copper properties on Ingram Mountain three miles west of Midway. This property includes the Texas claim, on which some exceedingly rich copper ore has been found.

The Wagon road from Greenwood City to Greenwood Camp is being pushed as rapidly as possible, and ere long it is anticipated that it will be used as the main trunk road over Boundary Mountain.

On the 27th of July the Byron N. White Company, the owners of the Slocan Star, declared a dividend of ten cents a share, amounting to \$100,000. The capital stock of the company is \$500,000. Since August, 1895, they have distributed \$250,000 (including this last) in dividends, equal to fifty per cent on the capital stock.

On the 4th inst the directors of the Le Roi declared a dividend of five cents a share, amounting to \$25,000. This brings the total paid by this company to \$200,000.

Mr. Newton, in the early part of this month, cleaned up 354 ounces on the old Jenkins claim on Stout's Gulch, about a mile from Barkerville.

The Flynn Brothers, of Mosquito Creek, have cleaned up 300 ounces.

Mr. Winthrop, at the mouth of Stout's Gulch, has cleaned up seventy-five ounces and will be busy for ten or fifteen days yet. He has also bonded a quartz claim for \$20,000 for one year.

A Handy Tent for Prospectors.

THE Protean Tent is designed for anglers and prospectors' use in camping, and it combines all the features of the best tents in a compact and portable form. It has but one pole though a wall tent, and by means of the fly the shape, extent and capacity of the tent can be readily changed or altered. It gives more available room for the same amount of bulk and weight than is possibly in any other tent. It stands independently of the sides, so that they can be turned up for ventilation. It can be as firm and secure as an A tent, in fact the front is the same shape, the roof running back from the pole to back wall, which is one-third as high as the width of the tent; the side walls are therefore nearly perpendicular.

For prospecting by using the tent for head quarters the fly can be taken and used as a prospecting fly, it being light and convenient, as it gives three sides, and by having a fire in front will catch all the heat needed in cool weather. The fly can also be used as an awning in front of the tent, or pegged down, makes an additional room, or in hot or wet weather it can be stretched over tent to protect it from sun or rain.

By joining the two tents with a connecting fly you can make a family or club compartment tent with three rooms.

The Protean Bicycle Tent is just the thing for one man either prospecting or bicycling, as there is plenty of room for pack or pick, the size being 4x6 1-2 with one perpendicular wall, and can be fastened to a tree, and only weighs four pounds.

Manufactured by Fred J. Squire, Nelson, B.C.

Notes.

PROSPECTORS, Miners and others in the mining districts are frequently in want of books and articles of stationery which are difficult to obtain outside of the larger towns or cities. The mails are open to them, but even then, unless they know the address of some reliable firm to whom they can send the order they are as much at sea as ever. The firm of T. W. Hibben & Co., Victoria, one of the largest in the province, are in constant communication with the principal publishers in Canada, United States and England, and can thus procure almost any book required. They also carry a full line of all sorts of stationery, etc., and parties in the mining districts needing anything in their line, or any book, should address the firm. They are noted for paying strict attention to orders by mail, and they will spare no pains to procure anything in the way of publications asked for. Write them.

The Canadian Rand Drill Co. advise us that they have just issued: Catalogue No. 1, Boilers and Engines; catalogue No. 2, Sawmill Machinery; catalogue No. 3, Contractors' Plant; catalogue No. 4, General Mining Machinery; catalogue A, Rock Drill and Air Compressors; catalogue B, Coal Mining Machinery; any or all of which they will be glad to mail to anyone interested on application to the Canadian Rand Drill Co., 516 Board of Trade, Montreal, or to F. R. Mendenhall, Spokane, Wash.; F. R. Mendenhall, Le Roi Hotel, Rossland, B.C.; G. L. Burritt, 193 Hollis Street, Halifax, N.S.; Room, 1,328 Monadnock Building, Chicago, Ill.; Sherbrooke, Que.

Catalogues Received.

Which will be sent free to any subscriber of the RECORD on application to the Editor.
Joshua Hendy Machine Works. Mining Machinery of all kinds.

The Giant Powder Company, Explosives.
Shelton & Co., Vancouver, B.C., Furniture.
Merrall's Hydraulic Quartz Mills.
The Pelton Water Wheel.
Goodyear Rubber Co., Rubber Goods.
Union Iron Works, Machinery.
The McGlew Ore Concentrator Co., Concentrators.
The Babcock & Wilson Co., Water Tube Steam Boilers.
The Goubert Manufacturing Co., Water Heaters, &c.
Gates Iron Works, Rock and Ore Breakers, &c.
Fraser & Chalmers, General Milling Machinery.
The Metallic Roofing Co., Steel Shingles.
H. W. Petrie, Machinist and dealer in Machinery.
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Girard Water-wheel Co., Water-wheels.
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James Leffel & Co., Water-wheels, &c.
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Stage Lines for Cariboo and the Northern Interior of British Columbia.

S. TINGLEY, GENERAL MANAGER.

GOING NORTH— Read down.	TIME.	PLACES.	Miles from Ashcroft.	TIME.	COMING SOUTH— Read up.
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*Mon and Fri, ar.	18.00	83-Mile House.....	68	5.30	de *Tues. and Sat.
*Tues and Sat, de.	5.30	83-Mile House.....	68	18.00	ar *Mon. and Fri.
*Tues and Sat.....	9.00	108-Mile House.....	93	13.00	*Mond'ys and Fri.
*Sleigh Rd, frm 108 Mile House)		Horse Fly.....	140		Special.
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Weekly Stage.....		Chilcoten.....			Connect Soda Crk.
*Wed and Mon..... ar	18.00	Quesnelle.....	225	5.00	*Sun. and Thurs.
*Thursdays..... de	5.30	Quesnelle.....	225	18.00	*Saturdays.
Thursdays.....	15.00	*Stanley.....	273	7.30	*Saturdays.
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* Weekly.

Days in *italics* are for summer season only.

Province of British Columbia.

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Provincial Mineralogist—W. A. Carlyle.
Public Assayer—H. Carmichael.

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—AND—

HOW TO REACH THEM.

ALBERNI.

Alberni.—Steamboat communication with Victoria and by stage with Nanaimo.

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Bonaparte.—Six miles from Ashcroft; stage from Ashcroft.

Big Bar.—Stage from Ashcroft.

Clinton.—Thirty-two miles from Ashcroft station; stage from Ashcroft.

Fort George.—Nearest post office, Quesnelle.

Horsety.—Nearest post office, 150 Mile House; stage from Ashcroft; change at 150-Mile House.

Lac La Hache.—One hundred miles from Ashcroft on stage line from Ashcroft to Barkerville.

Lillooet.—Weekly stage from Ashcroft.

Lightning Creek.—Between Quesnelle and Barkerville, by stage to Stanley.

One Hundred Mile House.—Stage from Ashcroft.

One Hundred and Fifty Mile House.—Stage from Ashcroft.

Quesnelle.—Two hundred and twenty-five miles from Ashcroft; stage from Ashcroft.

Quesnelle Forks.—Stage road from Ashcroft.

Soda Creek.—Stage from Ashcroft.

Stanley.—Stage from Ashcroft.

Slough Creek.—Stage from Ashcroft.

Tullo Lake.—Stage from Ashcroft, changing at Soda Creek.

Willow River.—Stage from Ashcroft.

Williams Creek.—At Barkerville.

CASSIAR.

Dease Creek.—

McDame Creek.—

COAL CENTRES.

Crow's Nest Pass.—

Nanaimo.—From Victoria, all rail, 73 miles. Steamer from Vancouver.

Union.—

Wellington.—From Victoria, all rail, 83 miles. Steamer and rail from Vancouver.

EAST KOOTENAY.

Cranbrook.—Nearest railway station, Golden. Communication by steamer from Golden to Windermere, thence by stage.

Fairmont Springs.—Nearest railway station, Golden. Steamer to Windermere, thence by stage.

Fort Steele.—Steamer and road from Golden. Steamer from Jennings, Montana, G.N.R.R.

Galbraith Ferry.—Steamer from Golden. Stage in winter.

Galena.—Nearest railway station, Golden; thence by steamer. Stage in winter.

Golden.—On the main line C.P.R., 475 miles from Vancouver.

Moyie River.—From Fort Steele, 25 miles.

McMurdo District.—Steamer and trail from Golden, 35 miles.

Perry Creek.—Steamer from Golden to Fort Steele, thence by road.

St. Mary's.—From Fort Steele, 20 miles trail.

Thunder H. L..—One hundred and fifteen miles from Golden. Steamer in summer, stage in winter.

Windermere.—Steamer from Golden. Stage in winter.

Wild Horse Creek.—From Fort Steele, two miles trail to Kootenay River.

WEST KOOTENAY.

Ainsworth.—Twenty-eight miles from Nelson and twelve from Kaslo. Steamer communication.

Albert Canyon.—A station on the C.P.R., 400 miles from Vancouver.

Big Bend District.—Fifty miles from Revelstoke by trail and boat.

Cariboo Creek.—Steamer from Nakusp, ten miles.

Fort Sheppard.—Nearest post office, Trail Creek; communication by rail and steamer from Revelstoke.

Illecillewaie.—On the main line C.P.R., 407 miles from Vancouver.

Kaslo City.—Thirty-five miles from Nelson; communication by steamer.

Lardeau City.—Forty miles from Revelstoke; communication by steamer.

Lardo-Duncan.—Steamer from Kaslo to head of lake, thence river trail 40 miles.

Nakusp.—North-west terminus of Nakusp & Slocan Railway, 50 miles from Revelstoke. Steamer communication from Revelstoke tri-weekly.

Nelson.—Thirty miles from Robson; is the eastern terminus of the Columbia & Kootenay Railway, and also on the Spokane & Northern Railroad. Steamer from Revelstoke.

New Denver.—Steamer from Revelstoke and rail from Nakusp; all rail from Kaslo. Distant from Revelstoke, 78 miles, from Kaslo, 28 miles.

Pilot Bay.—Eighteen miles from Kaslo, thence by steamer.

Revelstoke.—On main line C.P.R., 379 miles from Vancouver.

Rossland.—Seven miles from Trail Creek by road or stage.

Sproat's Landing.—One hundred and sixty miles from Revelstoke, and one and a half miles from Robson.

Springer Creek and South Slocan Camps.—From New Denver by steamer, twenty miles.

Sandon and Cody Creek.—All rail from Kaslo, 29 miles. Steamer and rail from Revelstoke via Nakusp and Three Forks. Distant from Three Forks, four and a half miles.

St. Mary's Country.—Steamer from Kaslo or Nelson to Davie Townsite, thence trail.

Three Forks.—Steamer from Revelstoke to Nakusp, thence rail; from Kaslo, all rail. Distant from Revelstoke, 82 miles; from Kaslo, 24 miles.

Trail.—Rail from Spokane to Northport, thence steamer. All steamer from Revelstoke, or steamer and rail via Nelson, from Revelstoke, 150 miles; from Nelson, 50 miles.

Trout Lake City.—Steamer and stage from Revelstoke.

LILLOOET.

Bridge River, Cayuse Creek, Fraser River.

YALE.

Boundary Creek.—Nearest railway station on the S. and O. R., Okanagan Landing, thence by steamer to Penticton and on by stage to Midway.

Fairview Camp.—Communication by boat from Okanagan Landing to Penticton, thence by stage.

Kettle River.—Steamer from Okanagan Landing to Penticton, thence by stage.

Midway.—Rail from Sicamous to Okanagan Landing, steamer Penticton and on by stage.

Okanagan Mission.—Rail from Sicamous to Vernon, thence by stage or by steamer from Okanagan Landing to Kelowna, thence by livery.

Osoyoos.—Rail to Okanagan Landing, steamer to Penticton, and thence by stage.

Rock Creek.—Rail to Okanagan Landing, steamer to Penticton, and thence by stage.

Yale.—Nicola Lake Stage from Spence's Bridge and Kamloops, 50 miles.

Any of these points may be reached by rail from Spokane to Marcus, and thence by stage twice a week.

Mail stage leaves Penticton for Midway every Thursday morning.

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PERRY CREEK GOLD MINING COMPANY.

A special meeting of the Stockholders of this Company will be held at the office of the undersigned, at 6 Bastion Square, on Monday the 31st day of August, 1896, at 3 o'clock in the afternoon sharp, in accordance with Section 2 of the "Companies Amendment Act, 1893," to consider a proposal for the sale of the mine.

By order of the Directors.

THOS. C. SORBY,

July 29, 1896.

Hon. Sec. P.C.G.M.Co.

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Time Table, in effect July 1st, 1896.

No. 2 Passenger, daily except Sunday; leaves Rossland 7 a.m., arrives Trail 7.45 a.m.
No. 4 Passenger, daily; leaves Rossland 3 p.m., arrives Trail 4 p.m.
No. 6 Passenger, Sunday only; leaves Rossland 8.30 a.m., arrives Trail 9.15 a.m.
No. 3 Passenger, daily except Sunday; leaves Trail 10.30 a.m., arrives Rossland 11.30 a.m.
No. 5 Passenger, Sunday only; leaves Trail 11 a.m., arrives Rossland 11.45 a.m.
No. 1 Passenger, daily; leaves Trail 5 p.m., arrives Rossland 5.45 p.m.
All trains run on Pacific standard time. Connections at Trail with Columbia River & Kootenay Steam Navigation Co's. steamboats, Spokane Falls & Northern Ry. via Northport, Canadian Pacific Railway via Revelstoke.

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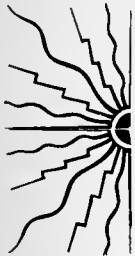
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TIME TABLE NO 9.

In effect March 15th, 1896.

REVELSTOKE ROUTE, STEAMER "NAKUSP."

Leaves Arrowhead for Nakusp and Robson on Sundays, Tuesdays and Thursdays at 8 p.m.

Leaves Robson for Nakusp, Arrowhead and C.P.R. points east and west on Mondays, Wednesdays and Fridays at 4 p.m.

Connection is made at Robson with C. & K. Railway for Nelson and all points on Kootenay Lake and with steamer Lytton for Trail and Northport.

TRAIL CREEK-ROBSON ROUTE, STEAMER "LYTTON."

Leaves Trail for Robson on Mondays, Wednesdays and Fridays at 8 a.m.

Leaves Robson for Trail on Mondays, Wednesdays and Fridays at 1 p.m.

Close connection at Robson with steamer Nakusp for Nakusp and Revelstoke and with C. & K. Railway for Nelson and Kootenay Lake points.

NORTHPORT-TRAIL CREEK ROUTE, STEAMER "LYTTON."

Leaves Trail for Northport on Tuesdays, Thursdays and Saturdays at 7 a.m.

Leaves Northport for Trail on Tuesdays, Thursdays and Saturdays at 1 p.m.

Connects at Northport with Spokane Falls & Northern Railway for Spokane.

NELSON-KASLO ROUTE, STEAMER "NELSON."

Leaves NELSON FOR KASLO.—	Leaves KASLO FOR NELSON:—
Sundays at 4 p.m.	Sundays at 8 a.m.
Tuesdays at 5:30 p.m.	Mondays at 8 a.m.
Wednesdays at 5:30 p.m.	Wednesdays at 3 a.m.
Thursdays at 5:30 p.m.	Thursdays at 8 a.m.
Fridays at 5:30 p.m.	Fridays at 3 a.m.
Saturdays at 5:30 p.m.	Saturdays at 8 a.m.

The steamer leaving Nelson connects on Tuesdays, Thursdays and Saturdays with Nelson & Fort Sheppard train at Five-mile point, and with C. & K. Railway on Wednesdays and Saturdays for Kaslo and Lake points.

The steamer leaving Kaslo connects on Mondays, Wednesdays and Fridays at Five mile point with Nelson & Fort Sheppard train for Spokane, and at Nelson with C. & K. Railway for points north and south.

The right is reserved to change this schedule at any time without notice.
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